

CHAS. R. BUCKLAND.



BOOK NO.

18

ACCESSION

*f663 P11

238653

NOT TO BE TAKEN FROM THE LIBRARY

Form No. 37-5M-9-24-C.P.

THE ONLY VITICULTURAL PAPER IN THE STATE.

VOL. XVI, NO. 1.

SAN FRANCISCO, APRIL 23, 1886.

PRICE 15 CENTS

Of President Haraszthy at the
Fourth Annual

State Viticultural Convention.

"I am pleased to announce to you the opening of the Fourth Annual Convention under the auspices of the State Viticultural Commission. Our interest is growing from day to day, the interest in this convention is likewise growing from year to year. The first one that we had some four years ago drew general attention, and many of you will remember the magnificent display of grapes, in some instances from one hundred to one hundred and sixty varieties exhibited by a single person, and I believe over two hundred distinct varieties were shown in this hall. The following conventions illustrated the various qualities of wine that were submitted from these new varieties, as well as bringing together a great many of those wines which had never been prepared before, from the same qualities of grapes from different parts of the State. This comparison, without premiums, but in friendly contest you might say for the opinions of your neighbors and others in different parts of the State, has rebounded to the great benefit and advantage of this industry. Last year especially was an interesting one in the matter of the comparisons of these varieties that were more recent importation, and known varieties made from single grapes in different parts of the State. The knowledge that was acquired has been of a value that can hardly be estimated. It has resulted in the planting or the re-grafting of nearly all of our vineyards up to a certain extent in size. Everybody now is wishing to produce some of these qualities that have been so successful for comparison and that have been so successful. If the convention had been unsuccessful and the public spirit of the various wine growers who had these rare wines to exhibit and who exhibited them to the public for comparison and for study had not been so magnificent we would have been now exactly where we were ten years ago. A new state has arisen in development, a new competition in that every one is trying to have the best vineyard planted with the best varieties. We have progressed as you will all recognize. And if you do not recognize the fact I have been sure that will show you what has been done in the last ten years. I have gathered from reliable statistics the following: The export in 1875 of California wine, in all its forms from the State was 1,043,567 gallons. Five years later the export more than doubled, it was

then 2,487,353 gallons. In 1885, last year, under the pressure of a very large crop and the resulting influence of low prices for wine and in spite of all prognostications the export was larger still; it amounted to 1,256,224 gallons of wine and 263,540 gallons of brandy. Gentlemen, I congratulate you upon your efforts. You have in ten years' time quadrupled your exports. The figures which I give you are taken from the custom-house reports and are entirely reliable.

The cause of this grand increase is due first to the improvement in the quality of your wines, and better appreciation of them, both at home and abroad, second, our increased production. Wherever there is a surplus there is an attempt necessarily made to get rid of that surplus. New efforts are introduced and new enterprises are starting in every direction. That is necessarily the result of large crops. Had you made three or four million gallons of wine you would have been limited possibly to that amount and perhaps have had a surplus in hand out of that. No other reasons can be given for the increased exportation. Let us see to the making of better wine, and more of it, and we can safely leave the market for future consideration. However I must caution our over sanguine producers not to expect too great a return for their products until the market has been firmly established, and to those who are about entering on the seductive pursuit of raising grapes I must caution against paying an extravagant price for vineyard land. That is an important factor in your profit. The time has not arrived when you can pay an exorbitant price for vineyard land, in spite of what land agents may say to you and the possible conclusions drawn from the newspapers. They never hold, they are flighty, and you certainly will be misled if you follow their advice. I warn every person, and I lay great stress upon this, who would not be satisfied with a return of \$45 to \$50 per acre that he had better carefully stay out of the business for at least a number of years. You have all of you noticed very likely, in newspapers, of from \$150 to \$100 profit per acre, and that is given to you as an inducement to go into the business. The amateur wine growers who have had experience do not listen to such stories except to smile at them, but I am afraid that a great many other people think they can put out their money and then go to sleep afterwards. They will be sadly disappointed.

In a general manner, among other things, I would like to draw passing attention to the duties that devolve upon this Commission. It is the province of this Commission to give advice, as good, but mainly better than it is in its power to give, in the selection of varieties of grapes at the time most proven, and imparting such knowledge in cultivation and pruning as is best known, also as to the mode of fermenting wines and giving information as far as lies in their power as to the manner of taking care of and ageing those wines, like wise the

(selection of proper lands for the growing of raisins, and the method of curing the same.

These duties I claim the commission has done to the best of its ability and with unabated zeal. Thousands of experiments have been made in these lines and their fruits are already beginning to show themselves. It is also one of the duties of this commission to watch with a jealous eye any matter of legislation that might either impede or advance the interests of viticulture in our State. And I assure you gentlemen, to perform these duties it takes up a great deal of our time. It is also one of our duties to bring to the notice of consumers both at home and abroad a knowledge of the cheapness, the quality and the purity of our wines. This is a work that the commission has laid its hands to, as has been shown by various publications of the commission, and from numerous reports that emanate, or information that comes from the commission. In fact my knowledge of any importance, or any experiment that has been undertaken that might be to the advantage of general viticulture in the State is always sought out and investigated by the commission to the fullest extent of its means and power, and they pronounce upon it as far as their knowledge goes for the time being. We have cautioned a great many people in certain things that have borne good fruit and they are now getting the benefit of it, on the contrary we have advised a great many people, with our limited knowledge, to do certain things that we afterwards had to retract. Knowledge is all the time progressing. We are learning every day. Things that we thought were essential twenty years ago we find now are perfectly useless. So it is with our experiments. We are only at this moment emerging from the darkness, we are beginning to see a little future within our grasp and a very near one. At the present time last year, to be more to the point, I mean a year ago, there was a very large crop in this State, that was estimated at between fifteen and twenty million gallons. The requirements of the State for shipment and for home consumption is between eight and ten million gallons, not over. Under the influence of this very large production, as you have come known that it was a fact that fifteen million gallons were made, there was a general loss and very few profits. Many people did not take into consideration the fact that at least one other factor in the wine was only their historical fact. Many of them had been made into wine after the fashion of the grapes, from the same vine, the grapes. So that contracts that had been made for 22, 24 and 26 per cent of alcohol and over could not be filled. For 18 per cent. This necessitated the dropping of a quantity of wine, so that the 18 per cent. was not filled. It is so, and this is the reason why a very small quantity of grapes. It has been the experience that a very large quantity of grapes was made, but it was an attempt made to fill the quantity

whether by outsiders, consumers or small jobbers in the eastern states—I am not going to say, to deride our wines, and the reason was that everybody rushed like a flock of sheep and threw their wine on the market at the same time and were thus surprised that it was not immediately taken up. The result was for a few months a disastrous, but I am glad to say that at this moment the market is firmer than ever, and from present appearances I doubt whether we have wine enough to carry us over to the next vintage. I fear therefore that we are going to have a very serious set back by being compelled to send to the eastern market the bulk of the new wines of 1906.

Among the labors of the commission, outside of experiments in different kinds of grapes, general attention was called to the process of condensing must. This project seems to be in its infancy. It is claimed for the process that the must can be reduced so as to retain the special qualities of the grape and afterwards be reformed at other points by the addition of the necessary amount of water—that it can be safely fermented out. When the claim was first made I had my doubts as to the success of the process, and, within a week, at the University, I had those doubts confirmed, and also by some experiments made by the viticultural commission, that the special characteristics and quality of the grape were not retained. There is however one thing certain that this must can be made in that way, and it might be made at a cheap rate and would perhaps be a great relief to the market. Future experiments however will have to be tried to show the advantage of it outside of the possession of saccharine matter and grape juice.

[illegible]

what we are and who are suspicious in their ways and in their mode of living, and the fact that there is a great deal of adulterated wine on the market makes them suspicious of all wine, and you may talk California purity as much as you please yet you cannot convince these people; there is a lurking fear that they are going to get a tainted wine. And unless they can come to our cellars and buy they do not want to buy from our agents in the east. That is the universal experience of our dealers here. By reason of that there is a great deal of wine lost to our eastern friends and of profits to ourselves. If this law is passed, which we hope will be passed, there will be an immediate revolution here in our wine trade. To further the general knowledge among consumers in the east of the prices at which our wines could be obtained, and for the purpose of showing the qualities of our ordinary wines we had an agent sent forward, and I shall call upon the committee who had the matter in charge, the Hon. M. M. Ester, to address you when I have closed these brief remarks. Mr. Pohndorff was selected by that committee, as you all know, to go to the Louisville Exposition and start there with samples of wine and make them known to the public generally, not to sell wine for any firm or for any individual, but during his stay there to show how wines can be made and that it was good wine and cheap wine. I do not doubt that in a very short time fruit will be borne from these efforts. Mr. Pohndorff also represented the wine growers in the New Orleans Exposition, and it is to be regretted that his samples were limited to a few bottles or a few gallons, otherwise he could have done a great deal more good.

Before concluding I will state that this convention is intended solely for the purpose of meeting wine growers of the various sections, to compare notes with each other, to acquire knowledge of making a marketable wine. It is not intended to arrive at any positive result, to do anything and say that we have arrived at such results and make it final. But gentlemen above all I caution you that this convention is not one gotten up like a political convention. Where we meet with the intention of passing resolutions. I trust we shall not see any resolutions passed here or offered unless they are absolutely necessary for the time being. It is not a place of resolutions. We have nothing to resolve upon. That rule will be strictly laid down and adhered to.

Price of Grapes.

Mr. A. G. Chanche, of Livermore, who has a large winery there, has offered to contract for grapes during the coming vintage, at the following prices;

VINTAGE OF 1886.

Zinfandel.....	\$20 00 per ton
Mataro.....	20 00 "
Carignan.....	20 00 "
Grenache.....	18 00 "
Charbono.....	15 00 "
Malvoisie.....	10 00 "

Petite Syrah.....	\$30 00 per ton
Petit Pinot.....	25 00 "
Franc Pinot.....	25 00 "
Mounier.....	25 00 "
Chaucho noir.....	25 00 "
Moudeuse.....	25 00 "
Tannat.....	40 00 "
Trousseau.....	25 00 "
Petite Bouschet.....	30 00 "
Alicante Bouschet.....	30 00 "

MEDOC VARIETY.

Cabernet Sauvignon.....	\$50 00 per ton.
Cabernet Franc.....	50 00 "
Carmener.....	50 00 "
Merlot.....	40 00 "
Petit Verdot.....	40 00 "
Malbeck.....	25 00 "

SAUTRANE VARIETY.

Sauvignon Blanc.....	\$30 00 per ton.
Sauvignon vert or Coloumar.....	25 00 "
Semillon.....	25 00 "
Muscadet.....	25 00 "
Reising (variety).....	25 00 "
Chasselas (variety).....	20 00 "
Folle Blanche.....	20 00 "
Burger.....	15 00 "
Sweet Water.....	15 00 "

Order your copies of the Report of the Fourth Annual State Viticultural Convention by postal card to E. C. Hughes & Co., 511 Sansome Street, San Francisco.

THE GRAPE AND WINE INDUSTRY.

[Bradstreets, April 3rd, 1886.]

Within the past two months, considerable interest has been aroused throughout the United States, concerning the viticultural industries of the country. This was mainly due to the efforts of the California State Viticultural Commission, through their chief executive officer, Charles A. Wetmore. This gentleman recently visited Washington and New York. There he has moved all who are interested in wines or raisins to form a National Viticultural Society. Meetings have been held, samples of the pure wines of California have been tested, and valuable information has been imparted as to the price at which they can be obtained and sold at a profit. This is certainly the first important movement among the wine makers of the United States for concerted action and the due recognition of the industry they represent.

The outcome of this movement has been the introduction in the House of Representatives of a Spurious Wine bill. This aims at the taxation of all compounds sold as wines that are not made from pure juice of the grape. Dealers in such compounds must pay a certain revenue tax, and their goods must be marked as "compounded." A penalty of a fine and imprisonment can be imposed upon any violation of the law. It is strange that the only opposition made to the bill so far, has been by a New York house, which is agent for a California wine firm. As the bill was mainly drawn up by the representative of the California wine industry, it appears that our friends in the west, are willing to punish and condemn frauds in their own state as they are elsewhere. This is a healthy sign, and one that should carry some weight, because, as a general rule, it is claimed by the most interested parties that they and their neighbors can do no wrong, but that the injury to their business is brought about by unscrupulous persons elsewhere.

When the State Viticultural Commission of California, fathers a bill before Congress that is as applicable to their own state as to others, it shows a healthy tone and desire for reform. That good, pure wines can be produced in different parts of the Union is acknowledged, and we see no reason why the honest producers should not be protected against compounders and the manufacturers of spurious wines. Much of the wine sold in this country under French labels has never seen France or any place but America. It is too customary to decry our own production and demand the foreign article. We can make excellent pure wines, and improvements in this respect are more apparent every year.

With so much comparatively trifling experience, it must be conceded that the results have been more satisfactory than was anticipated. It seems strange, however, that a bottle of California wine can be purchased cheaper in Washington and New York, than it can in many places in San Francisco. Such was found to be the case by Mr. Wetmore, and points to a much-needed reform in the chief wine producing state. Cheap prices will insure a larger consumption, and we believe that a judicious and energetic extension of the trade will prove that there is ample room in the United States, for the consumption of all the wine that will be made for many years to come. Yet the honest wine makers should certainly be protected by legislation against fraudulent makers of imitation

wines, whose goods, in some instances, have never seen the sight of a grape.

Referring to the above, the San Francisco Chronicle says:

Referring to the bill just introduced into Congress, by Green of North Carolina, for the protection of genuine wines against spurious compounds, Bradstreets observes that "the only opposition made to the bill so far, has been by a New York house, which is agent for a California wine firm." This is what we meant the other day when we protested against people engaged in a fraudulent industry going to Congress, and actually demanding that their rascally trade should be protected at the cost of honest wine making.

The "California wine firm," referred to by Bradstreets, is perfectly well known here, and if it remains in the business we shall some day feel bound, in justice to fair dealers, to give it a little gratuitous advertising. Its specialty is "lengthening" wines. It goes into the market and lays up a quantity of cheap wine—the refuse of the vintage. This it dilutes with water and fortifies the compound with cheap brandy. Then, as the mixture has become pale from the infusion of water, it restores the color with cherry juice and aniline dyes. Thus doctored, the compound is shipped to the East and sold as California claret. Of course the cherry juice and aniline dyes are not particularly wholesome; delicate stomachs are apt to be upset by them, and then the Eastern doctor orders the patient to give up drinking California wines, and our product gets a black eye. Sometimes this distinguished firm picks up a lot of fairly good wine; this it bottles, labels St. Julien or Beaune, and sells at the East as genuine Bordeaux or Burgundy wine. The fraud is only one shade less heinous than in the previous case.

In the face of evidence establishing these facts and of their unquestionable effect on the Eastern market for California wines, friends of the industry have no choice but to expose the fraud. It is a duty they owe to the honest wine grower. It cannot be shirked without dereliction.

Dalmatian Wines.

Dalmatia, this important strip of coast on the Adriatic, has among its olive and orange groves on the slopes of the high range of mountains which elevate themselves in near vicinity to the sea, the considerable area of 67,669 hectares of vineyards which yield at an average 40 millions of gallons of wine. The wine trade of France considers the product of the Dalmatian vineyards, as far as home consumption allows a surplus for the French markets, one of the best sources for blending with good French wines. The French consul of Spalato calculates about 20 millions of gallons of deep tinted wines available for the French market. The wines of the district of Spalato have from 12 to 13 per cent. alcoholic strength, those of Brazza, Solta, Lesina, Cuzzola, Sebenico and Tara 9 to 11 per cent. and their color is less intense. Prices range from 54 to 60 francs per 26.4 gallons (hectolitre) for 1st class. In 1883 they were from 26 to 32 and in 1884 from 44 to 46 francs. Part of the wines are shipped via Fiume and others via Baril. The varieties of grapes yielding deep tinted wines are the Modrina, the Ruscivica and the Gerbie. The Czerljene, Glavinisia and Advocati yield rose colored wines, while the Vugara, Ragusa, Malvasia, some Grossblauer, Prosecco and Trebbiano are the varieties for white wines.

The Bouschet-Vines.

Mr. L. Rougier of Montpellier states as follows:

Monsieur F. Bouschet, desiring to increase the coloring power of French vines while preserving their abundance of fructification utilized hybridization for this purpose. He took Teinturier which has an extraordinary deep color in its fruit. Skin and pulp of the Teinturier grape are of a very deep red color. The stock is not vigorous.

At the moment of blossoming Mr. Bouschet united Teinturier and Aramon branches and produced fecundation of the blossoms of one of the two varieties by those of the other. This union produced seeds, which sown, re-produced an intermediate stock between the two varieties, the Petit Bouschet.

Mr. F. Bouschet's investigations and experiments have been continued by his son in the most zealous and intelligent manner; utilizing the Petit Bouschet for a collection of new types, some of them of real value. The fault found with the Petit Bouschet in France is its small sugar development. Superior to it is the Alicante Bouschet, rich in sugar and coloration. The type Alicante Henri Bouschet is assuredly the best. At La Valette, near Montpellier, and at Mas de las Sorres, grafted on Riparia its fructification is extraordinary. Twenty-five to 35 bunches are the result of grafts at the second leaf.

Its defect is susceptibility to injury by frost.

Aramon Teinturier Bouschet is one of the most fertile hybrids. Its color is as dense as that of the Petit Bouschet.

Terret Bouschet is remarkable for its fructification, but its color is less intense.

Aspiran Bouschet is the best colorer, but its production is feeble.

Carignan Bouschet according to its originator, has all the advantages of the Carignan without the liability to be injured by mildew.

The blue Portuguese variety of precocious development is acceptable also as a table grape.

French Wines From American Grafts.

At the late exposition organized by the regional society of viticulture of Lyons, France, where a large number of samples of wines from direct juice of American vines, and from vinifera grafts on American varieties were exhibited and carefully tasted, the following opinions were the verdict of the committee:

We have before this and now again tasted products from French vines grafted on American stock, and we have found but little difference from the wines obtained direct from the same French varieties. In time it is to be presumed this difference will disappear completely. This gradual amelioration has been observed, according to the acquisition of some age of the grafts. Gamays and Chasselas, grafted on Vialla Solonis, Taylor, Riparia and Elvira, have given the same wines as Gamays and Chasselas produced direct. The wines of such grafts not only have no foxy taste, but the same qualities as the best growths; these qualities are reproduced in grafts on American vines as well as by non-grafted vines. It has been remarked that wines from grafts age and mature sooner than from non-grafted vines.

The business office of the "San Francisco Merchant," has been removed to No. 511 Sansome Street.

The Cloverdale Society.

At the last regular meeting of the Cloverdale Viticultural Society the following officers were elected for the ensuing term: Wm. Caldwell, President; J. B. Cooley and E. G. Furber, Vice Presidents; C. H. Hall, Treasurer; J. G. Heald, Secretary; P. L. Sheldford, E. G. Furber and S. Harrison, Finance Committee.

The subject of raising funds to help defray the expenses of C. A. Wetmore to return to Washington to try to influence Congress to pass such laws as will be of great benefit to grape growers resulted in a subscription of \$45.

A committee was appointed to draft resolutions on the death of Josiah Moulton, who presented the following memorandum which was unanimously adopted:

IN MEMORIAM.

WHEREAS The Supreme Ruler has called from long sufferings to his last home Josiah Moulton, a member of this society.

Resolved. That in his death the community has lost a good, honest, open-hearted citizen.

That viticulture has lost a true and energetic friend.

That this society has lost a good substantial and enterprising member.

That his family has lost a kind and devoted father and husband.

Resolved. That these resolutions be written in the minutes and published in the *Reveille* and San Francisco *MERCHANT*, and a copy sent to the family.

J. G. HEALD, } Committee.
WM. CALDWELL, }
E. G. FURBER, }

The Government of Brazil, according to the news given by the Rio de Janeiro papers, has taken energetic and even violent measures against the manufacture of wines and spirits of that city. At domiciliary visits at the stores of well-known merchants toxic substances have been seized. The Minister of the Interior has prepared regulations which prescribe the manufacture and sale under false labels, and any indication as natural wine artificially made, and not the result of fermentation of grape juice only.

The Phylloxera Commission of Labouret, France, among other rules of advice, publishes the following two points:

The grape planters should give more space to the roots of American vines than that habitually allowed to French vines, both in the sense of the length of rows and of the distance between vines in breadth.

They should choose for grafting stock Ruparia, Solonis, York and Vialla, which have given proofs of success, and Jacquez should be used with prudence.

The delegates of the Chamber of Commerce, of the agricultural society and of the wine-sinicate of Narbonne, France, in a special meeting have emitted the following resolutions on the question of plastering vines:

1st. That thorough investigations be made immediately of the effect of plastered vines on healthy people, to find out if these wines are innocuous or dangerous to the public health.

2d. That meanwhile in the interest of producers of and dealers in French wines the standard of sulphate of potash in wines be again established at the proportion of four grammes per litre, which is the dose allowed by law until 1880 and is considered preferable to the dose of two grammes arbitrarily fixed by the French Government without serious trials.

INTERESTING REMARKS**By Charles A. Wetmore at the Fourth Annual State Viticultural Convention.**

On stepping on to the platform Mr. Wetmore was received with applause. He spoke as follows: I think we ought to congratulate ourselves both as and gentlemen on our success this evening. This is the largest attendance on any first day of our conventions, and I believe that there are interests that are manifest among the vine growers and mercantile community throughout the State, not before exhibited, and I think we shall have a very successful convention, and that we shall awaken a higher interest that has been long wanted in this State. We have had, it is true, with us at our meetings a few enthusiastic men who have worked hard to bring the industry to the development it stands in to-day, but a great many of those who are most concerned in these meetings have not attended, and when I speak of those who are interested I mean those that have got the most capital invested on the least information. As a matter of fact the largest vineyards in this State have been planted on the least experience and the least knowledge. We expect to put us in this work, not only the men who have ten acre vineyards and who have spent the last ten years they have got, and mortgaged their land, but we expect, and we have a right to expect, that the capital that is behind the investment should interest itself in its success. The public all know there is something to learn, that talent cannot be hired for a dollar a day when wanted, as we have found out in the past from experience. We find that the good wine comes from those places where the proprietor is interested in it himself, and it is a proprietary question that we are continually discussing. If the proprietors of the vineyards do not understand what should go into the cellar, the wine will be bad and your efforts will be as naught, and your vineyards will never amount to anything. As you leave here I hope you will influence as many people as possible, especially that class of men who have from a pecuniary standpoint the most at stake, and who have the means to accomplish their ends. Get them to take an interest here with us and stay with us, not to come in, simply take a glass of wine and look around and go away again, but to stay here and do some of this work. The exhibits are really the chief result of our Convention, but they have never been fairly studied excepting by a few. A great many have sent exhibits who apparently imagined that they were sending them to some agricultural fair, expecting a premium or diploma, and have taken great offense because they did not get some testimonial. I have had many such remarks made upon the subject, and one gentleman from Fresno has written a very insulting letter to the Commission stating that he will never send any of his wine again to have it snubbed, because members of the committee criticised the wine as they did that of others that came before them. We do not come here for fermented results, we come here to learn. As far as possible I think we ought to abolish the idea of making reports, excepting to let the report be such as our minds suggest here, then if a man cannot come it is his misfortune. It is wrong to put into any man's hands the writing of a report. He can satisfy no man entirely. The exhibits are sent here simply for general instruction, and there ought to be a great deal of good derived from them as there has been in the past. I know of many vineyards that have been planted on exhibits seen here. I speak of this because attention to exhibits will be more prominent during this Convention than heretofore. More time will be given to them not only in the morning but in the afternoon. We have never yet been able to get through the list of our exhibits, working as roughly and rapidly as we do. We have always bottles unopened, and there are others that ought to be examined two or three times and we have not had time to do it, and I would suggest to the Committee, when it is appointed, as it will probably be appointed, with some reference to the districts, that loc-

ality should be considered as we tried to have it done in San Jose at the Convention, where each one of the Committee was on his own hook, each one getting all the information he could to take home and report to his own local Society and among his own people, because we find that every time we try that it is entirely impracticable to get five or six or ten men together to pass on an exhibit and therefore it is left to one man. Now if each member of the Committee will go on his own venture and get all the information he can for his own locality, it will do more good than if we wait here two months and then have one man write the report and have the others sign it when they have forgotten what they have tasted.

Special attention during this Convention should be given to rarities, new things, not because they are new, but because they have been tested, experimented with for the purpose of demonstrating something. And I am sure, ladies and gentlemen, that you will find, as has been found in the past, that the original theory that this Commission started on years ago, with reference to the selection of the vine, is the right one, and you will see it demonstrated and proved that we are right. The Natoma Water Company has figured largely throughout the State during the past year by reason of having samples of grapes that were made for exhibits. This did not happen by accident. When they were planting their large vineyards, they consulted our Commission, and a list of grapes that were valuable in other parts of the world, and had excellence attached to them, was made up for the use of that company. And it is only one of the large, very large new vineyards that have profited to a very great extent by the work of the Commission. Whenever there has been a valuable type of wine derived from these experiments or plantations, you will find by tracing it back to the beginning that it was selected because it was known to make good wine in other parts of the world, and it does not do anything else here. Every sample of Cabernet, that makes the finest wine in Bordeaux, that was presented to our Commission from any part of the State, was fine, no matter where it came from. Unfortunately some happened to be put out on very poor places where they were not suited. That was not any fault of the grapes. For instance, the Mataro does not come in everywhere alike, for it does not thoroughly ripen in some places, but wherever the Mataro does ripen well, and ferments well, it is always a worthy and a good wine, with the difference that in some places there will be more color than in others, but it is always a good wine. Wherever the Reising is raised in this State, excepting where it over ripens, or the soil is unsuited, it always has made a good wine—you always have had a good product from it. It has only failed to produce good results where it has been planted, on account of its early ripening. In districts where it was overripened it got too sweet. So with Folle Blanche, it makes the finest cognac there is wherever it is raised here, and every time we have tried it, it has made a noble liquor.

As we said here years ago, we proved nothing, but only demonstrated what has been done in other parts of the world, and we begin now where we ought to have begun years ago. You will observe this in the examination of wines. Do not be carried away by too much technicality or style. These are all well enough when they are determining relative degrees of excellence. The real object is to know what you want. If you select the good varieties, known to produce good wine in other parts of the world, you will get good wine here. The same types will be always good. Bordeaux wine is very different in its way. There is Chateau Lafite, which is said to be better than others, but in that you are deluded as you are in other things, and if you only make as good wine as they do in the Medoc or other districts of that neighborhood, you will have no difficulty of disposing of your product. The truth is you don't get those finer grades for there is very little of such wine. The fear has been all the time on the part of the producer that he is not going to make a living in making good wine, but he must have quantity. That has been our drawback. I have seen it in the East lately. It is the complaint of the poor quality of our wine that keeps us

back—that we have had a great deal of poor wine on the market. I have been in Washington they were selling California Zinfandel, and it came from a straight lot, too, that was the poorest wine of the lot. It never ought to have gone out of the State. No dealer ought to have been first class by selling it. It ought to have been distributed. But I never found anywhere any difficulty where the wines were good. The only trouble was to know where to get them, who to buy them of. You will find all this work that you are doing and all the work on this last run marks to bring you right back to the sampling tables. It is right there where you will get the most success. The wines that you will prize, there are the wines that the public want to meet the common taste, are the wines that you will most approve. In selecting, lay aside your personal interest and the fact that it was made in your district or elsewhere. Such wines will sell in the Eastern markets or anywhere else, and you will find that the wines that you don't like, other people don't like. And if you will begin this year and find out from the samples what it is that makes a good wine it will be a good work. There are thousands and thousands of acres of vines in this State that must be grafted within the next few years, and it is only by examining these samples that you will find out what to graft with, for it is easy for Mr. Pohlendorf or Mr. Hraszthy to advise you that this is a good wine grape, or that that one will make a fine wine, if you have not demonstrated it by your own taste, it will prove of little advantage to you. It will be like most of the advice given by this Commission when it started, somebody will be afraid that they wish to sell cuttings. I have seen that thrown up against this Commission many times. Let the man that wants to plant a vineyard visit this Convention and learn by his own taste what he wants, and not by the taste of somebody else. It is best to taste for himself that he may find out what he needs, and if he has not a good taste, let him ask his wife, for his wife has a better taste than he has. I find all over the United States that the women don't drink here, but they do when they go to France, American women do, and the real truth is that the wines are not as good here as they want. They are more particular than a man is.

There is another thing for you to think of. When the sampling is going on don't watch somebody else who is supposed to be a great expert in wine tasting, but think your own thought first and you will find that you are generally right. Experts don't make the taste of the world. They did not make the Bordeaux wines or cognac brandy popular. It was the people who had to buy it. Of course it is a cultivated taste that discriminates against small effects, such as an uncultivated taste would pass over, but such persons are rare. But if a good sound table wine that will please the palate, you may be governed by your own taste. I have seen this, for when the Cabernets or Gutedels have been passed out, I have heard the remarks, "that is good." But unless you can hear the approving sound, that is good, when wine or brandy is tasted you may suspect that there is something wrong in the making of the wine or the selection of the grape, and you will find that everywhere. The same way with the brandies, you put the brandy in the glass and many people will pick out the best one by the smell, and that is the only way to tell brandy, by the smell. I have watched this for years. At first I was so certain that I was afraid to speak my thoughts I went to somebody else to tell me what was good, but when I commenced to try it, what I thought I commenced to find that I could pick out good wine, and so can you and every one else.

At the first report I started a desire for the possession of a vineyard was, when I had a vineyard as I had looked upon the progress with interest. It is of nature that I should be able to waste the fruit of the vineyard, and I should be able to make it so that I could get the most out of it. I thought I could not do it, but I have seen it in the East lately. It is the complaint of the poor quality of our wine that keeps us

The Hawaiian Treaty.

EDITOR MERCHANT: The present agitation in regard to the Hawaiian treaty is fraught with so much importance to the interests of the Pacific coast, that it should claim the attention of every individual who desires the advancement of the industries of the State.

Admitting that the balance of trade, in a pecuniary sense, is at present against the United States, it is well known that the limit to the productive capacity of the Islands, has been nearly, if not entirely, reached, while the consumption of American products is steadily increasing at a rate which within the next five years may fully equalize the financial relations between the two countries.

The native population of the Islands is fast becoming extinct. Chinese immigration has been prohibited, and with the influx of the white race, to take the places, thus vacated in the labor field, the demand for supplies from the United States must increase.

It must occur, even to the most superficial observer, how inconsistent are the opponents of the treaty in their arguments.

From the editorial rooms of one of our local papers, which has been foremost in its attacks, comes the cry that sugar has not been cheapened to the consumer; while, from the Eastern, Western and Southern States we hear in no mild tones that sugar has been cheapened to the extent that it has never been lower than at present.

Admitting the correctness of the latter argument, has not the object of the treaty been attained; are not consumers all over the United States benefited by the competition of Hawaiian sugars, with those from Cuba and other sources? As for the Pacific coast, if the present extremely low rate of freights from the East, so low in fact that they can only be temporary, have not yet been low enough to permit Eastern sugars underselling our local manufacture, how can you ever expect to have cheaper sugar?

The local paper before mentioned will reply by shutting up our local factories, and will blind you with wild assertions and extravagant statements, and laugh in its editorial sleeve at your gullibility, if you are foolish enough to believe them.

Looking upon this from another point of view, it is safe to predict that we have statesmen of sufficient patriotism, craft and forethought, who are sufficiently above sectional influences to see the advantages of our present commercial relations with the Hawaiian Islands, and who will prevent the abrogation of the treaty.

They can see in the Islands the White race of our own flesh and blood surely supplanting other races. They can see in the future a government more similar even in its system to our own, upheld by 60,000 people who are our equals in civilization. They can see that, for commercial prosperity, these people are dependent upon a reciprocity treaty with a foreign power, and be it with the United States, England, Germany, or France, they must and will stand firmly with the nation to whom they look for a market, and eventually will either become a standing menace to, or a military outpost of the United States. We can ill afford at this time to permit other nations, which are awaiting our action in this matter, to open relations with the Islands as soon as we may discard them. We are in no position to protect our own coast, let alone to dictate to what extent the Islands may enter into relations with some other

power. In fact the value of maintaining our relations with the Islands from a military standpoint is so apparent that no man with any approach to common sense can gainsay it.

So far as I have gone we have glanced at this matter as it affects the United States as a whole. How far will abrogation affect the Pacific coast?

By immediately cutting off the main source of outlet for our productions. Vessel after vessel, loaded down to the guards, sail every few days, carrying everything that is used by a civilized community. Hay, grain, vegetables, canned goods, lumber, furniture, live stock, etc. Two or three steamers per month arrive from and depart for there. In fact the Islands have almost become a part of California, so necessary to the state is that market.

Yet there are those in our midst who, masquerading in the attire of a friend, are striving their utmost to deal a blow which would fall upon every industry in the state, but they cannot become successful.

It is inconceivable that the time will ever be allowed to come when our mail from the Hawaiian Islands will reach us by way of Victoria, and vessel after vessel be spoken off our coast, bound to and from the British Possessions, while we are sweetening our tea and coffee with adulterated Eastern sugar, our hay and potatoes rotting in the ground, our ship-yards silent, and our factories closed.

A MERCHANT.

San Francisco, April 21st, 1886.

Give the Vines Room.

[From the Vacaville Reporter.]

Some of the old vineyards in San Gabriel valley that have been bearing fruit for 100 years have not been yielding heavily for the past few years of light rainfall. These vines are planted only six feet apart, and their long roots are interlaced and struggling with one another for moisture and sustenance, which are not equal to their full support, these vines are attempting to commit murder on each other. By cutting out every second row the moisture in the soil will be doubled to each vine, and the fertilizing elements of the soil will also be increased in the same way. The vines removed will make excellent firewood and the cost of pruning will be reduced one-half. If this remedy does not sufficiently increase the size and yield of the remaining vines, then cut out every other vine in these remaining rows and give the vines a chance for their lives. They will be quite near enough together then at twelve feet apart. At Santa Barbara there is a Mission grape-vine the branches of which are supported by timbers, and it has frequently produced three tons of grapes. This is more than 1000 Mission vines have produced this year in many of the closely-planted vineyards of the olden time. Now, is it not reasonable that it is less trouble to take care of one vine, or even ten vines, than it is to take care of 100 vines spread over an acre of ground? There is no manner of doubt, from various illustrations shown of the growth and yield of the vine when it has had no competition, that ten vines on a half acre of land can be made to yield more grapes than 1000 vines on an acre of land. It is not an uncommon sight to see a ton of grapes on a single vine, where the vine is alone and has all the soil within reach of its roots to feed upon.

The establishment of five-cent wine shops is increasing in San Francisco, there now being three in operation, and doing a good business.

Grapes Under Cultivation.

[Wynberg Times.]

Nothing requires more care and attention than the grape, if a good wine is desired—or requires less, should the farmer not be exacting. It is not enough to get the best plants, for though the species are very few—and perhaps all the grapes in cultivation are derived from one private form—the varieties of wine are endless. A certain kind of grape when grown upon the Rhine furnishes one of the many kinds of wine called by the name of "Hock." But the same grape when raised in the valley of the Tagus yields Baelhas. Again, in the island of Madeira its juice is known as Sercial, with a flavor quite different from its kindred on the mainland; and in California, or Australia, or the Cape, under different suns, and in different soils, the wines made from the imported plants change so rapidly in character that the most experienced connoisseur cannot detect their relationship. Soil unquestionably is much, and sunshine is a large part of what remains. But neither the food which the vine sucks out of the earth, nor the warmth which enables it to transform this into the wondrous ethers which yield the bouquet held in such esteem, is everything. For if the grapes are not carefully tended and carefully collected, the "must" will suffer from the ignorance or the carelessness of the grower. It seems miraculous how the same plants will, in different years, and in soils much the same, or under skies a few leagues distant, produce grapes the character of which is so widely different. The grape is, in truth, the most sensitive of crops. In every berry there is concentrated the solids and liquids of earth and air. In a glass of wine there are more salts or mineral ingredients than in the waters of many a German spa, and, not to speak of the oils and ethers, the extractive matter is enough to furnish work for the most skillful analyst. It need not, therefore, be wondered if so complex a laboratory is apt to get out of order when the conditions under which it works best are in the slightest degree varied. A little more heat or a little less moisture, a foot or two nearer the sky, a day or two less sunshine, mean weal or woe to the vintage.

Just What Miners Want.

Miners, attorneys and business men will be glad to know that *Copp's Mining Code* has been revised and brought down to March, 1886. It carefully condenses the mining decisions of the courts and the land department, gives all the late Land Office instructions and circulars, the several United States mining statutes in full, and all the local mining laws, as promulgated, of the several Western States and Territories, together with the forms for location notice, miner's lien, notice to delinquent co-owners, application for patent, adverse claim, lease, deed &c. It is the latest, cheapest, and only reliable miners' guide now before the public. Send for a copy Price 50 cents.

The patent valve attachment for wine and beer casks, of Thomas S. Glaister of Sonoma, is well worth the attention of all wine makers. Its claims are simplicity and the prevention of the waste of the wine. Further particulars with cuts of the fancet are given in another part of the paper.

The Woodland Winery is offered for sale. This winery is complete in every particular; its buildings, machinery, cooperage and situation being all that could be desired. It is an excellent opportunity for any person desirous of entering into the business.

THE AUSTRALIAN MAIL SERVICE.

The arrival of the Oceanic Company's steamer Alameda, on the 18th inst., with over 200 passengers, and a full cargo of freight, goes to prove the popularity of the present Australian mail service. The Mararoa left here on the previous day with a good passenger list and the whole of her freight room filled by shippers to the Colonies, taking nothing for Honolulu, and even refusing some for Australia. The Mariposa, the next inward steamer, is bringing even more passengers than arrived by her sister steamer, the Alameda.

The only objection ever raised to this service was by the New South Wales Government on account of the trans-shipment of passengers and freight at Honolulu. But this has been done away with, and the steamers running on the line have proved more than satisfactory to the Sydney public, consequently the subsidy to the service will be granted by the New South Wales Government. There is a general desire on the part of the English and Australian travelers to visit America, and we believe that shortly efforts be made to increase this tourists' traffic in our direction.

Mr. James Mills, the manager of the Union Steamship Company of New Zealand, the contracting parties for the existing Australian mail service, is now in this city. While here, he will confer with the Messrs. Spreckels of the Oceanic Steamship Company, who are also participants in the service, with a view of completing arrangements for an even more effectual performance of the contract. At present writing no new developments have been made public, but it is safe to say that the public will be no losers in whatever arrangements may be perfected.

The last trip of the Alameda was probably one of the most enjoyable ocean excursions that ever took place. The passengers were all of the "jolly" sort and had made up their minds to enjoy themselves. This they did most effectually by having concerts and entertainments of every description throughout the entire journey. So pleased, in fact, were the passengers with the ship and the manner in which they had been treated on board, that, on the night before their arrival in San Francisco, they had a grand re-union and presented Captain Morse, the most popular of all popular commanders, with a handsome testimonial and a pleasant souvenir in the shape of a purse containing \$250. When people gratuitously and voluntarily show their appreciation in a pecuniary way, then there is no doubt of its genuineness, consequently the good feeling toward Captain Morse is the more gratifying to that gentleman.

RAISIN AND WINE SHIPMENTS.

The overland shipments of wines and raisins in February were as follows:

WINES.		Gallons.
From—		
San Francisco	.....	198,077
Los Angeles	.....	31,588
Sacramento	.....	9,158
San Jose	.....	375
Total	.....	239,198

RAISINS.		Gallons.
From—		
Los Angeles	.....	447,080
San Francisco	.....	83,790
Stockton	.....	75,250
Colton	.....	48,000
Sacramento	.....	48,250
Total	.....	703,270

Wine Harvest of France for 1885.

(Report of Consul Roosevelt.)

From an official estimate of the wine harvest in the forty-two wine-producing departments of France I am enabled to supply the following information:

The yield of 1885 amounted to 28,536,157 hectoliters (753,839,659 gallons), a decrease of 6,241,575 hectoliters (164,962,937 gallons) on that of 1884, and a little over 13,000,000 hectoliters (343,421,000 gallons) less than the average yield of the last ten years, which exceeded 42,000,000 hectoliters (1,109,514,000 gallons), as will be seen by the following table:

Years.	Hectoliters.	Gallons.
1875	83,830,000	2,214,005,612
1876	41,847,000	1,105,161,199
1877	56,405,000	1,490,050,883
1878	38,729,000	1,287,273,063
1879	25,750,000	679,096,090
1880	29,667,000	781,713,139
1881	31,139,000	817,670,963
1882	30,886,000	815,015,161
1883	36,029,000	951,788,092
1884	34,781,000	918,809,197

The decrease has been notably in the following departments: Ariège, Aude, Charente, Charente-Inferieure, Dordogne, Gard, Haute-Gironde, Gers, Gironde, Hérault, Landes, Marne, Haute-Marne, Basses-Pyrénées, Haute-Pyrénées, Pyrénées-Orientales, Tarn, Vendée, and Vienne. The decrease was principally in the Midi, while the yield in the eastern departments shows decided increase.

The middle departments, while not advancing, do not report a falling off in the yield.

Principal among the multiplied causes affecting the harvest was the continued inclemency of the weather during the entire spring and early summer, harming the vines even in those departments ultimately showing an increase in the vintage. From the flowering to the maturity of the grapes at no time were the vines free from injurious elements. Thus, having suffered from frost in April, they were parched and dried from the excessive heat prevailing during the months of July and August and in many districts devastated by hail. Finally the autumn rains, which in the Midi are welcomed as favoring the development of the grapes, were ruinous in the middle departments and mountainous districts.

Added to the other deplorable causes existing in the Midi and west, particularly in the Charente, were the mildew and the progressive and persistent phylloxera.

PHYLLOXERA.

There are at present in France fifty-four departments in which the vine is wholly or in part destroyed by the ravages of the phylloxera. The extent of infected area is estimated at nearly 430,000 hectares. Notwithstanding the wide spread of this deadly plague only 50,173 hectares are completely destroyed.

Proprietors are constantly replanting their vineyards with American vines, and in the departments of Ardèche and Lozère the results have been eminently satisfactory.

Last year the mildew appeared in the departments of Aude, Dordogne, Haute-Garonne, Gironde, Isère, Lot-et-Garonne, Haute-Pyrénées Orientales, Deux-Sèvres, Tarn, and the Gironne.

The diseased vines were successfully treated with sulphate of copper. Owing to the deficiency of the harvest of 1885, it could seem that the amount of foreign importation of wines should have greatly increased. On the contrary, the amount of importations during the first eleven months of 1885 decreased from 7,219,000 hectoliters (amount of 1884) to 6,832,000 hecto-

liters. This is partly due to the decrease in home consumption and partly because of the endeavors of the viticulturists and wine merchants to increase the fabrication of wine by employing the residuum of the vats, dried grapes, and sweetened water.

The amount of wine thus produced has increased from 2,885,000 hectoliters (76,213,045 gallons) in 1884 to nearly 3,967,000 hectoliters (104,796,239 gallons) in 1885. The amount manufactured from dregs 1,713,000 hectoliters (45,252,321 gallons), from dried grapes 2,284,000 hectoliters (59,533,918 gallons).

Thus it will be seen that the reduction of the duty on sugar has operated favorably on the production of fabricated wine.

The following statement shows the wine harvest in the department of the Gironde from 1875 to 1885, inclusive:

Years.	Hectoliters.	Gallons.
1875	5,279,110	139,066,173
1876	1,081,015	51,791,025
1877	3,511,091	92,752,570
1878	2,219,114	58,381,581
1879	1,577,506	41,408,701
1880	1,600,235	42,858,427
1881	1,276,000	33,709,092
1882	1,114,000	29,428,518
1883	1,667,559	43,935,296
1884	1,318,183	35,350,784
1885	1,616,656	42,426,171

Total 22,861,202 593,914,239

The yield, though considerably below the average in quantity, is of good quality.

GEO. W. ROOSEVELT.

United States Consul.

United States Consulate,
Bordeaux, January 7, 1886.

Los Angeles Wins.

Los Angeles, some months ago, adopted the \$50 a month license policy. Her people could not now be possibly induced to give it up. Sacramento recently came within 400 votes out of 4300 of adopting the same system. Were a vote to be taken today it would show a majority in the affirmative. There are some causes that make progress through defeat, and this is one of them. In Los Angeles, the opponents of high license, after the defeat at the polls, resolved to test the right of the majority to adopt this police regulatory policy, and accordingly took a case of resistance to the law to the Supreme Court. That tribunal of last resort has just handed down an elaborate opinion, in which it holds the law to be constitutional, and the Los Angeles ordinance within the province of the local legislature to enact. That settles the legal phase of the high license question in California. The example of Los Angeles will now be followed by other cities and towns, which will reap full compensating benefits.—*Record-Union*.

The Olive.

In our numerous drives through the township especially south and east of Livermore, we have noticed that many hundred young olive trees have and are being set out this season. They are put out in many places along the roads. Being evergreen they will make good shade trees. In other places they are put on pieces of land and in places where nothing else will grow. In a few instances they are planted with a view of taking care of them. In several cases it is presumed the young trees will not live through the first year, if it does it will be a miracle. Although the olive is a hardy tree and will grow where a vine would die, yet if it receives good attention it will show every evidence of it in its good healthy growth. There is no question in our mind but that in a few years the olive will be one of the principal products of Murray Township.—*Pleasanton Star*.

The Hawaiian Islands, Either Hawaiian or American.

(Territorial Enterprise.)

It was announced, yesterday, that the House Committee on Ways and Means had decided, by the emphatic vote of nine to one, to report a resolution in favor of the abrogation of the reciprocity treaty between the United States and the Hawaiian Islands. Notwithstanding this action by the committee, we are not prepared to believe that it will be sustained by the House, and much less by the Senate, should the resolution ever reach that body. The definite duration of the treaty expired two years ago, but by its terms it continues in force until two years after formal notice of its abrogation shall have been given by either party. The purpose of the committee resolution referred to is to convey such notice to the Hawaiian Government.

The abrogation of the treaty at this time would be a very serious mistake, and it seems to us that the Ways and Means Committee must have acted in the matter in the absence of a full consideration of the political and commercial advantages of a convention which it proposes to annul with the stroke of a pen. Its abrogation would be not only a commercial mistake, but a grave political and national error which no statesman can afford to make. We presume the committee has been largely influenced in its action by statements of the fact that, under the operations of the treaty during the past eight or nine years, the exchanges of indurable products between the two countries have resulted in an advantage of twenty-five or thirty per centum in favor of Hawaii; that is, that while we have admitted free of duty from the islands raw sugar, rice, molasses, hides and bananas to the value of seven millions of dollars annually, Hawaii has given free entrance to and consumed but four and a half or five millions of dollars of products of the United States. It is possible that the committee has also been influenced by assertions that a single San Francisco firm has been mainly benefited by the treaty, and that the commodities of the islands have not been sensibly cheapened to American consumers by their free admission.

Neither of these assumptions is entitled to a moment's consideration. It is true that the eighty thousand people of the islands have not been able to consume American products to the full value of their rice and raw sugars, but they have more than made up the difference by spending the most of their surplus earnings in the United States, and using American bottoms almost exclusively, both in their inter-island and foreign carrying trade. Concerning the charge that a single San Francisco firm is principally benefited by the treaty, it is only necessary to mention that the firm referred to does not produce or control one-fifth of the annual sugar products of the islands. Over \$15,000,000 have been invested in the sugar industry of the islands, quite \$10,000,000 of which are American capital and under American control.

Nine-tenths of the exports of the islands find a market in the United States, and not less than seventy-five per centum of the imports are of American production and manufacture. Except the huts of the natives, the houses of the Islanders are built of American lumber, their sugar machinery is largely of American manufacture, their vessels are from American shipyards, their laws are copies of American statutes, their Government is under American control.

Their religion, even, was sent to them from New England.

England, France, Germany, Portugal and Spain are searching for possession and for the extension of their empires, and the colonization of their dependent and starving subjects. They are not only struggling for supremacy in Africa, but exploring the oceans of the Pacific for islands upon which to plant their flags and establish their authority. At no time during the past two centuries have the nations of Europe been more intent upon territorial aggrandizement. In fact, there is a wild grasping after territory in every direction, and the American Republic alone protects the New World from the encroachments of the nations of the Old.

We do not desire foreign possessions, we have land enough of our own, and people enough to protect our borders and our flag against all enemies, yet while this is the case, we cannot safely permit the Hawaiian Islands to become other than American should they ever cease to be politically what they are today. They are within the lines of our commercial system, are at our very western gates, are an indispensable outpost between the Pacific States and Asia, and their flag must be either Hawaiian or American. The native people are slowly passing away, and sooner or later the Islands must pass into other hands and into other political control. Through the Reciprocity treaty, which the Ways and Means Committee is prepared to abrogate, and which is a substantial commercial benefit to the United States, the Hawaiian Islands have become an American possession in everything but the name and expense of governing them. England stands avowedly ready to accept the treaty with Hawaii which a few thoughtless members of the House of Representatives are willing to assist in abrogating, but the Senate, taking a broader view of the subject, will hardly consent to sever the bonds which unite the future of the Hawaiian Islands with that of their neighbor and natural protector, the great Republic.

No Phylloxera.

There is one fact worth hundreds of thousand of dollars to California vintners, although it is not fully appreciated. We refer to the total exemption of this country from the phylloxera. No other American and other prominent vine countries are afflicted with this plague to an almost extent. No single instance of the presence of phylloxera has been known in this country. This fact and the supposed ease of our exemption were fully stated in these columns several weeks ago by a well-known viticulturist. While vineyards elsewhere are being devastated, ours are yet safe. Let us keep them so. This can easily be done by the exercise of the utmost vigilance and care in purchasing cuttings. Disinfected cuttings from other countries may, as a rule, be safe, but even there danger sometimes lurks. At a late cutting of very desirable variety, many of the purchased fruit vines from one of our country, and were especially nice, and who are intending to set out vines this spring to make their purchase good. In this matter a much better course would be used. If the vines are to be set out, the selection of vines may be the result of not trusting the fruit vine of a foreign country, but of getting the vines and planting them in the country. Our vines are mostly from the United States, and it will be cheaper to buy a high priced vine from a local grower than to pay for shipping from a foreign country, which may be a very dangerous business.



ISSUED FORTNIGHTLY ON FRIDAY MORNING BY

E. C. HUGHES & Co., - - Proprietors.

CHARLES R. BUCKLAND, - - Editor.

Office, 511 Sansome street. Postoffice Box, 2366

TERMS PAYABLE IN ADVANCE.

One copy one year\$3 00

One copy six months 1 75

Including city delivery, United States, or Canadian Postage.

Entered at the Postoffice as second class matter.

AGENTS.

ANAHEIM MAX NEBELUNG
 CLOVERDALE, Sonoma Co. J. A. GARRIE
 DIXON, Solano Co. A. K. STORY
 DUNCAN'S MILLS, Sonoma Co. J. F. SLOAN
 FRESNO H. C. WARNER
 Golden Rule Bazaar
 JEYNEVILLE, Sonoma Co. D. LEPTO
 HEALDSBURG, Sonoma Co. A. A. BALZELL
 MAWELL, Colusa Co. M. SATHIAN
 SANTA ANA R. F. CHITTON
 SAN JOSE, Santa Clara Co. E. B. LEWIS
 SANTA ROSA C. A. WRIGHT
 STOCKTON W. H. ROBINSON
 WINDSOR, Sonoma Co. LINDSAY & WELCH
 WOODLAND, Yolo Co. E. BERG
 HONOLULU J. M. OAT, Jr. & Co

FRIDAY APRIL 23, 1886

Recognition.

Our friends in the Fresno Viticultural and Horticultural Association recognize the value of a journal like the MERCHANT guarding and advancing their interests, and give effect to their good wishes in a very practical way, as will be seen by the following resolution:

Official.

FRESNO, CAL., April 5, 1886.

Proprietor S. F. MERCHANT. - Dear Sir: Below is a copy of the minutes of the last meeting of the Fresno Viticultural and Horticultural Society that is of interest to yourself.

Resolved - That this Association recognize the SAN FRANCISCO MERCHANT as one of the best organs of the Viticultural and Horticultural interests in the State, an exponent of their views and sole advocate of their interests, and, moreover as a paper which has taken more than ordinary interest in the prosperity of Fresno county. We agree to give the publisher our liberal support while at the same time pursue the course for which it has hitherto been distinguished. Moreover, we suggest that manufacturers and dealers in agricultural implements and other merchandise who wish to call our attention to their goods, aid us and other Viticulturists in maintaining the SAN FRANCISCO MERCHANT on a sound footing, by giving it a large share of their advertising patronage.

Be it further resolved that the Fresno Viticultural and Horticultural Society tender its thanks to the SAN FRANCISCO MERCHANT for past favors.

C. F. RIGGS, SECRETARY.

OUR FRENCH VITICULTURISTS.

We notice with pleasure the attention given by the French press of California to viticultural matters. Both in the principal French paper the *Courrier de San Francisco*, and the intelligent *Los Angeles Union Nouvelle* we see articles which show that our co-citizens of French extraction take an active interest in our industry. The number of French viticulturists in our State is less considerable than might be desired, for we know that much good for our industry comes from the foremost of viticultural countries, France, and we know that some of our oldest grapegrowers have helped greatly to gain what experience is ours. Any accession of French vine and wine-men in our ranks must be hailed with satisfaction, and it is a compliment due them that we are certain they will materially assist, both with their hands and their brains, to reach ever growing progress towards perfection in the products of the vine.

Order your copies of the Report of the Fourth Annual State Viticultural Convention by postal card to E. C. Hughes & Co., 511 Sansome Street, San Francisco.

AUSTRALIAN MAILED LONDON MAILED.

A company has been formed to run a new line of steamers from the port of Galway, on the west coast of Ireland, to New York; the first vessel of the line, the "Monarch," being advertised to sail from Galway on the 8th of next month. The company has been formed principally through the exertions of John O'Connell Lever, who for several years represented the Borough of Galway in the Imperial Legislature. Although an Englishman by birth, and a resident of the metropolis, he has ever been desirous to confer this important benefit on the west of Ireland. Mr. Lever inaugurated the line, some years past, which bore his name, and collapsed, owing to the inefficiency of the vessels constructed for the company during his temporary absence from England.

The formation of the Monarch line at the present moment, is a matter of considerable importance to the travelling public, and particularly to the Australian people, who are so desirous of shortening the time between the antipodes and London, and avoid the dangers of the Channel. It has been long since a conceded fact that if two vessels of equal size, and power, depart from New York, twenty-four hours can be gained by entering the harbor of Galway in preference to any other Western port; the reason being that when once Cape Clear is passed, all vessels bound for Cork or Liverpool, have to slacken speed, owing to the narrowness of the Channel, and the number of vessels constantly plying on its waters.

It is different as to Galway Bay, which can be entered in a gale of wind. Cod-bank soundings are known to extend in a westerly direction outside the Islands of Aran, upwards of 600 miles, and indicate to the mariner his position. The Islands are well lighted, and each of the three entrances are capable of being passed with safety by night as well as in the day, and at all times of tide. From thence up to the anchorage, a distance of thirty miles, it is comparatively smooth sailing, no shoals, currents, quicksands or rocks to interrupt the passage. The anchorage is not surpassed by any in the world, it is a matter of history that the Spanish Armada on a memorable occasion had to run before a gale, and rode out the storm in perfect safety under shelter of Mutton Island; it is also within the knowledge of many persons now residing in San Francisco, that during the terrific storm in 1839 when 2,000 vessels were lost on the British coast, not a single vessel having a sufficiency of cable, drew her anchor at the Roadstead of Galway.

With such advantages the "Monarch" must become a favored line, and will assist materially in shortening the passage between Sydney and London. We have reason to know that negotiations are in progress by which the Galway line will contract to have a vessel in readiness at New York to start with the Australian mails immediately on their arrival in that city. The firm of J. D. Sprickles & Bros, of San Francisco, who are the contractors for the transportation of mails between Sydney and San Francisco, will even now, with the vessels engaged in the service, anticipate the present contract time.

It now becomes a duty incumbent upon us as citizens to impress upon the California delegation, the necessity of using its influence to shorten the time for crossing the continent with the Australian mails to five

days. We cannot afford to miss a point in any direction. As we have powerful opponents to contend against in the P. & O. Steamship Company, time must be the essence of every new contract. The Suez route, and the California line are the two contending parties for the Australian trade. Any advantages possible in our favor will tend to an increased preponderance of the traffic both in passengers and mails, across the continent of America.

SPARKLING WINES.

Some correspondence and discussions have lately taken place in oenological, commercial and medical circles in France, on the subject of sparkling wines.

Mr. Pouchet, of the consultative board of hygiene of France, in the conclusions of his report says, that the composition of wines called Champagnes, fabricated in Germany and the United States, of which it seems, quantities are finding their way into France, is more than doubtful. These products do not contain a drop of wine; they are made of cider, rhubarb etc. But, he adds, he can proclaim loudly the perfect straightness and honorableness of the wine merchants of the Champagne district.

These remarks of which the oenological press of France takes note, seem strange, inasmuch as we are not aware that American sparkling wines, or rather imitations of such, are the object of exportation to France. Of German concoctions, we have no doubt that they pass the frontier. If the remarks of the consultative French medical board, based upon reports of Chambers of Commerce, are true, then we have reason to tell the honest grape grower to be on the alert, and recognize the extent of fraud carried on at his expense by the bogus wine people, who can dare to touch markets where pure wines can be distinguished from cheap poisonous stuff. California viticulture looks with pride upon the pure and pretty perfect sparkling wines made by the firm of A. Haraszthy & Co. As far as we know, this is the only Champagne made in the true French way of natural carbonic acid gas development. Any amount of cheap carbonized wines are made, and people are told that they are as good as the real Champagnes. This is an imposition, and we hope that nothing more serious than gas pumped into wine is happening on our Coast, and our gas-pumpers cannot be included in the explanations of the French hygiene board of American Champagne imitations that find their way into France. By all means for the safety of our consumers in this State of Champagnes, let the State Analyst examine California sparkling products, and where there is found anything crooked, let the people know it.

Raisin Rules.

At the Colonial and Indian exhibition to be held in London this month, the following rules have been established concerning the raisin exhibits: If raisins for exhibition are not of sufficient excellence no prize will be awarded; all raisins sent for competition must be properly boxed—full sized boxes to weigh 50 lbs. gross, half boxes 25 lbs. gross; loose raisins must be carefully sorted, and only raisins of equal size placed in each box; each box must bear the producers name and the name of the farm.

Any person interested in the grape industries, can join the State Viticultural Society on payment of \$1.00.

HOME INDUSTRY.

The Waltz Safe is the most expensively constructed safe in the market.

1st. It is the strongest made Safe—why, because it has the strongest wheels and castors, it has the strongest welded angle iron frames, it has inside T iron frames, giving extra strength to body of safe. The body or sides, top and bottom are formed of one piece of strong iron, especially made for that purpose, with round corners, it has the strongest bolt work and most bolts in number, it has the strongest walls, it has the strongest hinges, it has the most rivets in its construction.

The Waltz Safe is the best fire proof safe in the market—why, because the body of its fire proof filling is made of the best English Portland cement instead the lowest and cheapest grade of American cement, because it has a system of hot and damp proof air chambers in center of walls, because its walls are the thickest, because its door and frame has 7 flanges or rebates, because its door fits the best and has no large holes in back edge of door frame for stationary bolts or inside hinges—it has bolt work shooting at top and bottom, front and back of door, because it has outside hinges and improved inside bolt work, with hinged cap over it, because it is made with full inside iron and wood lining, because the inside doors are made of steel, because the front of the outside door is made of steel, because the doors will not warp or spring when exposed to fire.

The Waltz safe is more burglar proof than any other make of fire-proof safes.—Why, because it has no panels or patches in it made of stove-pipe iron, which may be cut out with a can-opener, because the front of door is steel and has an extra steel plate over locks, because the bolt and lock-spindles are conicle outside to prevent being driven in, because it has Yale's pick-proof, four-tumbler, side-shaft combination lock, capable of 100,000,000 changes, it also has patent key-dial lock, which is a perfect protection against the picking-up or stealing by outsiders of the combination when the lock is unlocked, all the locks used, are of the best quality and highest grade for the purposes they are designed for.

The Waltz safe is absolutely fire-proof.

The Waltz safe is entirely damp-proof.

It is fire, fall, and thief-resisting.

It is the only safe worth refilling after a fire.

It is not the cheapest safe in the market, when compared by size only—it is the cheapest safe when all its merits are considered.

Bear in mind that ordinarily the purchase of a safe is for a life-time, therefore seek the best and avoid one that is offered on its merit of cheapness only.

Mr. Chas. Waltz, the inventor and manufacturer of the Waltz safe, at 13 Drumm street, San Francisco, Cal., informs us, where parties desire, he places inside of the Waltz safe, Beard's patent screw door burglar-proof chests of any size desired.

Mr. Waltz informs us, parties having safes built to order, are welcome to examine them, while in course of construction, and see what they are getting.

Although the Waltz safe has only recently been placed upon the market, Mr. Waltz informs us, that he has furnished the following parties with special safes, built to order:

Hecht Bros. & Co., San Francisco, Cal., Austin Bros., Stockton, Cal., The Equitable Building and Loan Association, S. F., E. C. Hughes, S. F., Thos. H. Selby & Co., S. F., Davis & Cowell, S. F., California Democrat, S. F., and others.

Mildew and Rot on Grape Vines

[Report by Consul Newmark.]

Consul Newmark has transmitted to the Department the following translation of a letter read before the Academy of Sciences from M. A. Millardet, detailing his treatment of grape vines for mildew and rot. The process and its results have since been examined by M. Prilleux, inspector-general of instruction in agriculture, acting under the direction of the minister of agriculture, who confirms all that Mr. Millardet claims for his discovery.

M. Prilleux states that he visited the estates of Langoa, Leoville, Montond'Armailbac, near Pauillac; Beauneillon, in the commune of St. Julien; Pauzac, near Mergaux; and Salle de Fez, at St. Estephe, and that at all these places he made careful investigations and found that the vines attacked by mildew had been treated with the mixture of sulphate of copper and slaked lime in the manner indicated by M. Millardet, and with the most gratifying results; he strongly recommended, however, that the treatment should be applied as soon as the mildew is discovered, as it is much more efficacious than when used later, although it is beneficial at any stage of the disease. M. Prilleux says:

In summing up, it appears to me to be established by the facts that I have verified in the Medoc district that the sprinkling of vines with a liquid composed of about 8 per cent. sulphate of copper, mixed with slaked lime, arrests the progress of mildew and permits the complete maturity of the grapes on the affected vines. This treatment is simple and inexpensive, and it is to be hoped that next year all viticulturists will use it. The earlier the remedy is applied the better the results will be.

M. Prilleux further reports that the *Peronospora* (parasite) of the vine belongs to the same family as that of the potato and it is reasonable to suppose that the same remedy will prove as beneficial for one as for the other. In support of this hypothesis he says that at the Chat-au Langoa the tomato vines were attacked with a disease that, from appearances, was due to the development of the parasite of the potato, which, as is well known, also attacks the tomato. M. Jonet, the manager, treats them the same as he did the vines, and entirely cured them.

I consider the report of M. Prilleux, in connection with that of M. Millardet, conclusive evidence of the efficacy of the treatment proposed.

The following is M. Millardet's letter:

To-day, October 3, the vines treated have a normal vegetation; the leaves are healthy and have a handsome green color; the grapes are black and perfectly ripe. On the other hand, the vines that have not been treated present the most miserable appearance; most of the leaves have fallen, those that remain are half dry; the grapes, still unripe, are only fit for "piquette" [wine made from the residuum of the grape.] The contrast is startling. * * * My colleague, M. Gagon, professor of chemistry, has thoroughly examined the must produced from the grapes of the vines which have been treated, and also of the vines not treated, taking the same class of vines, "the Malbec." The following is the result:

	Treated.	Not treated.
Sugar.....	Grammes per litre 177	Grammes per litre 91.5
Acidity.....	5.1	7.7

In making the above experiments preference was given to those vines that are most susceptible to mildew. I would add that this year mildew has been of an exceptionally serious character.

I think I am therefore sufficiently authorized to vouch for the efficacy of the treatment of which I speak against a scourge which until now has baffled all efforts both in Europe and America.

It will be well now to state in what the treatment consists, when and how it should be applied. Dissolve eight kilograms of ordinary sulphate of copper in 100 liters of any kind of water (well, rain or river). In a separate vessel mix 30 liters of water and 15 kilograms of coarse lime stones, making a milk of lime, and mix it with the solution of sulphate of copper. A bluish paste will be formed. Pour a portion of the mixture into a bucket or other vessel, thoroughly shaking it, and brush the leaves with a small broom, taking care not to touch the grapes. There is no fear of any accident, not even to the most tender part of the vines.

The treatment was performed from the 10th to the 20th of July. At some points the operation was repeated a second time at the end of August, but without much advantage, showing that one application was sufficient. The mixture when dry sticks very fast to the leaves. After the vines were treated there occurred several storms during August, as well as the frequent September rains, but the evidences of treatment on more than one-half the leaves where the mixture touched them can be easily detected; those, however, which have no traces of the mixture are in as good condition as the others.

It is not necessary to entirely cover the leaves with the mixture. I think I may say that one touch on a leaf is sufficient.

There is one more important point to be considered. Notwithstanding all precautions, several drops of the mixture will fall on the grapes. Will the copper get into the wine, and if so, will it be present in sufficient quantities to affect the health? My colleague, M. Gagon, has promised his assistance in elucidating this question. A preliminary trial made by him on 800 grams of grapes taken from vines that were treated did not positively disclose any of the copper. His examination will be continued in this direction, and I hope before long to submit the result.

Diseases of the Vine.

[Report of Consul Frisbie of Rheims.]

The greatest hindrance to a profitable cultivation of the vine in all countries is undoubtedly the diseases to which it is subject; and therefore anything relating to the subject is always received with much interest by cultivators of the vine. Of late years, especially, the vineyards of France have suffered greatly from the destructive ravages caused by mildew, and more recently by the rot, and I have thought it of sufficient interest to the great industry of our country, centered in our vineyards, to give the experiments and the results obtained by certain French cultivators in their efforts to find a remedy and to stop the ravages occasioned in their vineyards, so far as they have come to my knowledge.

Relating to mildew, Mr. Vidal has already obtained good results by using vapors of sulphurous acid. Vines attacked by the *peronospora vitis* have been cured, and those in danger have been preserved. On the other hand, vines left to shift for themselves have contracted the disease.

Last year Mr. Perry insisted on the efficacy of sulphate of copper. This gentleman has already discovered that young vines by the use of props (stakes) steeped in and saturated with salts of copper are preserved, but admitted that the result was not sufficiently effectual, it being costly and useless for full-grown vines where no props were utilized. Lately he has experimented with salts of copper in a way which could be useful to any culture.

This new method consists in sprinkling the upper side of the leaves with a solution containing 5 per cent. of crystallized sulphate of copper. The effect is produced by a pulverizing sprinkler which causes a spray or fine mist to fall on the parts attacked. This system did not prevent damage, be-

cause it was only used when the mildew had already developed, preceding a long period of dry weather. It proved itself a thorough cure at the first rain by preserving the leaves, allowing the wood to ripen, the grape to ripen and develop in a very noticeable way as the disease was well developed when the operation was begun. This system should be adopted during the first days of July, or as soon as there is any appearance of the disease. Would a single sprinkling be sufficient? To this question it can only be answered at present that time will show, but that probably one sprinkling will suffice.

Mr. Perry hopes also to substitute in the treatment of oidium tuckeri (vine-mildew) salts of copper in preference to flowers of sulphur.

Mr. Millardet, a well-known botanist, has also obtained very good results with his system. He adopts for the treatment of mildew and rot a mixture of quicklime and sulphate of copper. Vines thus treated present a normal vegetation, the leaves healthy and of bright color, grapes black and perfectly ripe. On the other hand vines deprived of this mixture were of a languishing appearance, most of the leaves had fallen off, and those that remained were dried up; the grapes also produced only a sharp, disagreeable wine. The contrast was striking. The piece of vine treated and that of those not treated were both submitted to analysis and proved undoubtedly the high efficacy of the system.

This treatment was used in a vineyard belonging to Mr. Johnston, of Bordeaux, and fifty quarts of the mixture were sufficient to sprinkle 1,000 vines. At this rate two and one-half acres of vineyard, containing 10,000 vines, could be preserved at an outlay of about \$6.

The treatment was begun in the first part of July, and toward the end of August the operation was repeated in several parts of the vineyard, but without any very great additional advantage or benefit. A single application seems to be sufficient.

A comparative study was made on two vines of the same age and growing close together, and both being attacked at the same time, about the middle of July. One was sprinkled with the mixture and the other left to itself. The results were as follows:

	Vine sprinkled.	Vine not sprinkled.
Number of leaves.....	424	42
Bunches of grapes.....	18	14
Number of twigs.....	18	13
Total length of twigs, yards..	14	8

The average weight of grapes and leaves had fallen 50 per cent. in the unsprinkled vine. The experiments made on the juice of the grapes produced by vines treated, and those not treated were as conclusively in favor of the system as the above.

Mr. Millardet insists a great deal on the difference of alcoholic richness given by vines thus treated and to those not submitted to the system, being largely in favor of the treated vines.

It is said that in all the southwest of France since the appearance of mildew the degree of alcohol has fallen in the average about three degrees centigrade. It is the third of total value.

In 1885 the effects of mildew have been disastrous. Certain landowners did not realize any crop. In the Department of Gers, especially, by the end of July most of the vines had lost all their leaves.

Mr. Millardet has confirmed the destroying qualities of quicklime, sulphate of iron, and sulphate of copper against parasites of all kinds, but in different degrees. The most effective belongs to copper, one millionth of which in solution suffices to stop the movements and destroy the vitality of the zoospores of mildew.

Disinfecting Barrels.

A subscriber to the Paris *Montieur l'incile* asks how to disinfect, completely, barrels which have contained petroleum or mineral essences. The reply to this given by Mr. G. Bondeville, one of the collaborators of the said journal, is the following:

"Without hesitation we can answer that no system, no washing, no scraping can be effective to cause all the traces of petroleum to disappear from casks having contained them. The resins of petroleum convey into the wood hydro-carbureted matters, which, in contact with the alcohol contained in wine, dissolve and infect the wine totally. Steam cannot purge the wood of the strong odors of the essences which have profoundly impregnated the ligneous tissues. Alcohol dissolves petroleum easily, but it cannot free the pores of the wood from the mineral oils which have penetrated the very core of the wood.

No vessel having contained petroleum should ever be used to hold wine or brandy. The same is the case with vessels which have held grease in any form, except very clean olive oil, which has left no rancid sediment in the cask. Still no wine of quality should ever be put into such vessels. Reject equally casks having contained rum, kirsch, vermouth or any liquor of penetrant odor—whiskey not excepted, if you want to lodge good wine. Cider and vinegar casks can be depurated, but it is safe after disinfecting them not to use them for wine."

These rules are good and we endorse every word of them.

The Phylloxera Premium.

The report of Dr. Menudier to the French Superior Commission of Phylloxera, with regard to the premium of 300,000 francs to recompense the author of an infallible process to destroy phylloxera has been published. The conclusions are as follows:

1. The premium of 300,000 francs offered by the law of July 22d, 1874 is reserved.
2. The means recommended by the Commission for 1886 are:

- 1st. Submersion.
- 2d. Pi-Sulphide of Carbon.
- 3d. Sulpho-carbonate of potassium.

The conclusions were unanimously adopted.

Continental experiments on vines treated with a mixture of lime and sulphate of copper to cure mildew, show that the leaves of the vine exhibit most traces of copper. Then come the stalks and skins. Nearly all the copper, however, adheres to the surface; there is little quantity in the wort, and in the wine there is scarcely an indication of it. The maximum is 0.1 gr. to 1000 litres. This is attributed to the fermentation. The metal is precipitated and found in the dregs.—*Federal Australian*.

The celebrated old Burgundy of the Yereba Buena Vineyard, situated seven miles east of San Jose, and a thousand feet above the valley, is attracting considerable attention in the East. We learn that large orders for cases of this old Burgundy are being constantly received from all points East as far as New York.

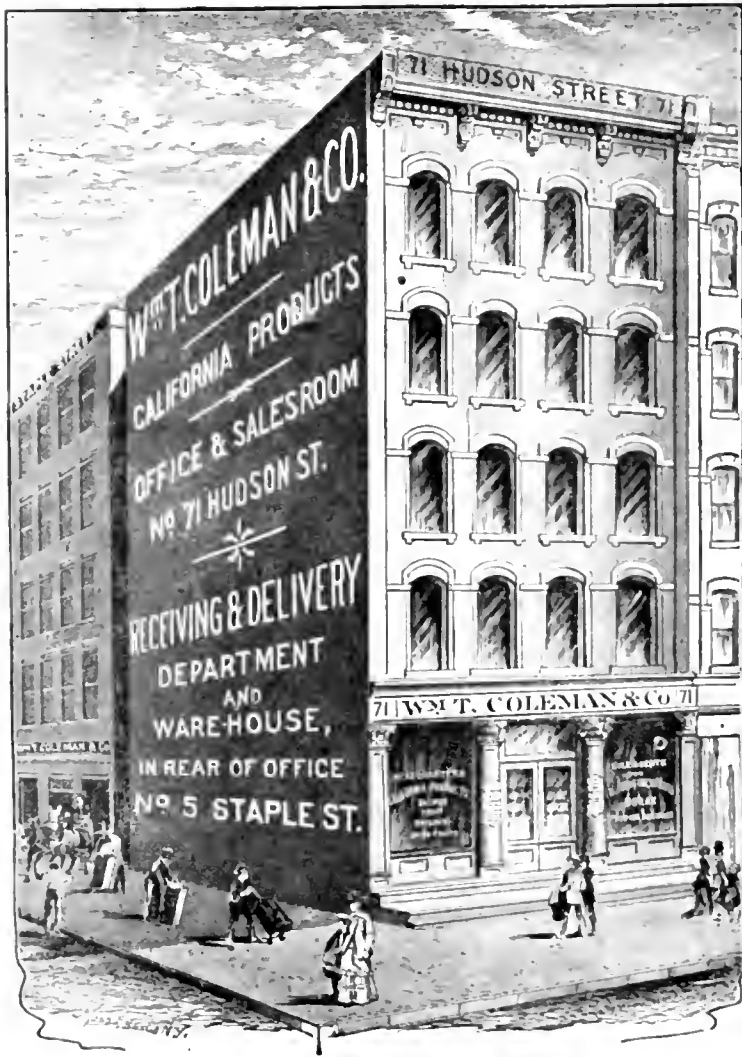
FILTERS FOR WINES.
FILTERS
GEO. J. HILFENBERG,
148 N. HOWARD ST., BALTIMORE, MD.

CALIFORNIA WINES AND BRANDIES.

San Francisco,
121 Market Street.

Astoria, Oregon.
Flavel's Wharf.

Chicago, Ill.
91 Michigan Avenue.



New York
71 Hudson Street.

London,
4 Bishopsgate St.,
within E. C.

Liverpool.
54 Drury Buildings.

WM. T. COLEMAN & CO.
71 HUDSON STREET, NEW YORK CITY.

ALSO AGENTS FOR
ALCOHOL, WINE AND SPIRITS.

The Bills Before Congress.

WASHINGTON, April 18th.—Some opposition to the two bills to aid wine makers, the one to stamp spurious wines, and the other to remove the internal revenue tax on spirits used in fortifying sweet wines, came from the distillers of corn spirits. On his way East, Charles Wetmore stopped at Louisville, Ky., and had a conversation with T. H. Sherley, the Vice-President of the Kentucky Distillers' Association. He presented to Mr. Sherley the purposes of the wine producers, and Sherley said that he heartily approved of the two measures and would aid in their passage. He wrote Mr. Wetmore a letter, in which he expressed his views. This will remove one obstacle to the passage of the two bills. Sherley's endorsement will bring to the support of the measures the distillers of Kentucky and Speaker Carlisle. The following is the written statement of the demands of the wine producers:

Our most pressing needs are: First—Legislation to prevent fraud and imposition in the wine trade, compelling the products which are known as imitation or bogus or compounded wines to be sold under stamps which shall identify their true character to all purchasers, and suppressing entirely all such as contain adulterations known to be deleterious to the public health. Wines that are pure to be so marked, that public confidence in them may be established, with a stringent penalty for false markings.

Second—In making genuine sweet wines the privilege of distilling a portion of our grapes free of tax, to obtain pure wine spirits to fortify such sweet wines according to the commercial standards, with limitations to such privilege as follows: the wines so fortified not to contain, after fortification, including the natural strength of the wines as produced by fermentations, more than 24 per cent of absolute alcohol. No wines to be so fortified free of tax except such as are positively sweet, and not less than 4 per cent of sugar, according to tests made with Ballings' must scale, after the distillation of the spirits, the volume of the residue being restored to the original volume of the wine tested by the addition of water; this privilege to be limited to the original place of wine making, and to apply only to pure wines made from grapes and to the wine makers who distill their own wine spirits. In the case of wines intended for exportation, however, fortification with wine spirits, free of tax, withdrawn from bond for any kind of wine, and to any extent demanded by foreign markets, under supervision of the Internal Revenue service, with provisions against fraud, and to prevent the importation of such wines without payment of the tax on the spirits used in fortification.

A Good Example to Follow

Is the following resolution of the society of Agriculturists of France, passed at the annual meetings ended March 9th, and endorsed with unanimity by the section of viticulture.

Regarding bogus wines: that all falsifications of any nature be condemned, and the authorities repress these manufactures energetically.

Regarding wines made from dried grapes—raisins: that such wines be never allowed to be sold except with a special stamp which denotes the veritable nature of the product.

AGENCY OF

WM. T. COLEMAN & CO.

91 MICHIGAN AVENUE, CHICAGO.

California Products a Specialty.

California

Canned

Fruits.

California

Dried

Fruits.

California

Raisins,

California

Wines,

California

Oranges



COLUMBIA AND SACRAMENTO RIVER SALMON,

—AND ALL—

Pacific Coast Products Suited to Eastern Trade.

CONSIGNMENTS SOLICITED, AND ALL CORRESPONDENCE

PROMPTLY ATTENDED TO.

T. B. McGOVERN, Manager.

RUPTURE RADICALLY CURED by Dr. Pierce's Great Discovery. Thousands of patients cured at their own homes. No Experiment! It does the Work! DR. PIERCE & SON, 701 Sanson St., San Francisco, Cal.

**JOHN SMITH,
WOOD AND COAL
DEALER.**

223 POST ST., San Francisco.

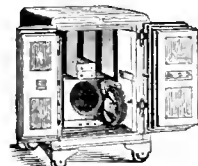
FINED \$50 FOR SELLING COAL AT LESS PRICE than that established by the Retail Imposers. Don't be imposed upon, but buy your Coal from me, and help break down a combination to rob the poor man.

A. O. COOK & SON,
MANUFACTURERS OF
OAK TANNED
TRADE MARK.

Leather Belting
LACE LEATHER IN SIDES AND CUT
STRINGS.

415 Market St., San Francisco.

FIRE-PROOF SAFES ALL SIZES.



CHAS. WALTZ, inventor and Manufacturer of the Waltz Safe. Fire and Burglar Proof Safes, Time Locks, Bank and Vault Work, a Specialty. Expert work done in opening and repairing Safes and Locks. Beard's Patent Screw Door Burglar Proof Safes and Chests. Safes built to order.

CHAS. WALTZ,
11 Drumm Street, San Francisco, Cal.
Write for prices and information.

BUHACH AGAINST INSECTS!

Now is the time to destroy Insects on Trees, Vines, Rose Bushes, or any other plants with **Buhach**, the great

California Insect Exterminator!
DON'T BUY IT IN BULK, but in original cans. Warranted absolutely pure. Directions for use with each can. Sold by Druggists and Grocers everywhere.

Buhach Producing & Mfg. Co.,
154 LEVEE ST., Stockton, Cal., and 49 CEDAR ST., New York, Sole Manufacturers.

P. S.—In all cases where the powder fails to do the work, please send us a sample of it by mail, and the name of the dealer, so that we may protect the consumer, as many dealers have been selling spurious insect powders for Buhach. The word "Buhach" is our registered Trade Mark, and no person can sell any other Insect Powder but ours under that name.

**WOODLAND WINERY
FOR SALE.**

Located at Woodland, Yolo County, Cal.

Complete in all its Appointments. Capacity 120,000 gallons. Steam Crusher, Hand Crusher, two Stills, Syrup Pan, Pumps, and everything Complete. Cooperage in best condition.

TWO-STORY BRICK BUILDING,
125x60 Feet. Fifty rods from Depot.

Three thousand tons Wine Grapes raised here last season. This is a rare chance for engaging in this business. For full particulars inquire at office of

LANDBERGER & SON,
123 California Street, S. F.

— OR —
CLARK & CULVER, Proprietors,
Woodland, Cal.

E.C. HUGHES PRINTER
511 Sansome St., S. F.

H. H. MOORE,
BOOKS ON VITICULTURE, ETC.
(French and English.)

409 MONTGOMERY STREET,
Near California, San Francisco.



A. 1876 S. I. XII
I. S. 1888 G.

The Industrious never Sink.

GUY E. GROSSE, Broker in Real Estate
Ranches, Residence, Business and Manufacturing Property Bought and Sold on Commission. Also Publisher of "Sonoma County Land Register and Santa Rosa Business Directory."

Office, No. 312 B St., SANTA ROSA, CAL.

BOSTON BELTING CO.
GOOD HOSE A SPECIALTY.

J. W. CIRVIN & CO.,
24 CALIFORNIA STREET, S. F.

THE WELLINGTON,
21 DUPONT ST.,
Near Market, San Francisco.

Handsomely Furnished Rooms

FOR GENTLEMEN ONLY.

DR. A. FONTAINE'S PREPARATION



WILL DEVELOP A BEAUTIFUL FORM in sixty days, the effect of which is permanent and easily discernible in ten days. Where a perfect bust is already possessed, it will preserve the same firm, and perfect in shape. This is a carefully prepared prescription of an eminent French physician and scientist, and is free from lead and all injurious ingredients, and will not injure the most delicate skin. A fair trial will not only convince you of its efficacy, but will elicit your sincere thanks and enthusiastic praise. Mailed secure from observation on receipt of price, \$1.00. Sealed circular, 4 cts. Sold by Druggists. Address, **MADAME FONTAINE, 19 East 14th St., N. Y.**

**THE NATOMA
WATER AND MINING CO.,**
HAVE FOR SALE

The Following Rooted Vines and Cuttings

GAMAY TEINTURIER,
CARIGNAN, CHARBONO
CRABE'S BLACK BURGUNDY,
MATARO, TEINTURIER,
LE FRANC'S MALBEC,
COLOMBAR, BURGER,
CHAUCHE NOIR,
RIESLING (Various.) TROUSSEAU,
LE FRANC'S CHALOSSE,
FOLLE BLANCHE, MALVOISIE
BLACK FERRARA,
HERBEMONT. MEUNIER,
Etc., Etc.

Also a Large Selection of

FOREIGN IMPORTED STOCK

For Complete Catalogue and Price List apply to
The Natoma Waer & Mining Co.
NATOMA, Sacramento Co., Cal.

CALIFORNIA VINEYARDS.

KRUG CHARLES,
Krug Station, St. Helena, Napa Co., Cal.
Producer of fine Wines and Brandies.

J. C. WEINBERGER, Manufacturer of Wines, near
St. Helena.

H. W. CRABE, Wine Cellar and Distillery, Oakville,
Napa County.

MOUNTAIN WINE
From the Celebrated
YERBA BUENA VINEYARD,

Situated 7 miles East of San Jose. One thousand feet above the Valley. In cases or bulk fine old Burgundy and Mountain Riesling

PAUL O. BURNS WINE CO., Proprietors.
Branch Cellars in San Jose, Cal.
Wm. T. COLEMAN & CO., SAN FRANCISCO,
Sole Agents for Chicago and New York

T. & M. E. Tobin & Co.,

PRODUCERS OF PURE

CALIFORNIA WINES & BRANDIES,

Cor. Stockton & O'Farrell Sts.,

San Francisco, Cal.



P. P. MAST & CO.

31 MARKET ST., S. F.

SELL THE WELL AND FAVORABLY KNOWN

BUCKEYE PUMPS,

The simplest and easiest-worked Pump

FOR WELLS OF ANY DEPTH

Ever Offered.

SEND FOR CIRCULAR AND PRICE LIST.

Graham Paper Co.

OF ST. LOUIS.

W. G. Richardson,

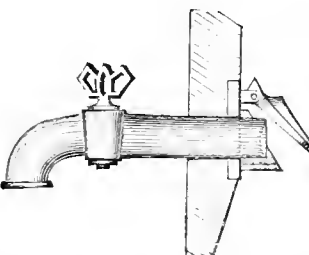
PACIFIC COAST MANAGER,

No. 529 Commercial St.,

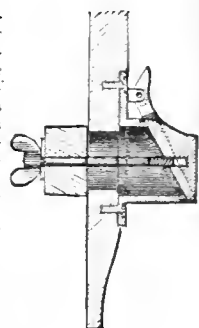
SAN FRANCISCO, - - - CALIFORNIA.

TELEPHONE No. 1064.

**THOMAS S. CLAISTER'S
PATENT VALVE ATTACHMENT
FOR WINE AND BEER CASKS.**



Claim.—1. The combination, with annular valve-seat secured within a cask behind the bung-hole, of a gravity-valve provided with a threaded socket, and a spindle adapted to engage the socket and securely hold the valve against its seat, substantially as herein.



2. The swinging or gravity valve on the inner surface of the door of a cask, and controlling its bung-hole, in combination with the means for positively holding said valve closed. When the wine is ready, it can be drawn off by simply inserting the faucet.

For further particulars apply to

THOMAS S. CLAISTER,
So oma, Sonoma County, Cal.

THE CUPERTINO VITICULTURAL SOCIETY

Meets on the evening of the third Thursday of each month at Mr. Montgomery's.

J. C. MERITHW... President
J. D. WILLIAMS... Vice President
R. C. STILLER... Secretary

Please address all communications to R. C. STILLER, Gulserville, Santa Clara Co., Cal.

ESTABLISHED IN 1860.

ALL WINE MAKERS

Should drink the

PURE BELMONT

— HAND-MADE —

SOUR MASH WHISKY.

Supplied in lots to suit by

JAMES CIBB, 617 Merchant St.

THE RISDON

IRON AND LOCOMOTIVE WORKS.

Cor. Beale & Howard Sts., S. F.

W. H. TAYLOR, Pres't. **JOSEPH MOORE, Supt.**

BUILDERS OF STEAM MACHINERY

IN ALL ITS BRANCHES.

Steamboat, Steamship, Land Engines and BOILERS, High Pressure or Compound.

STEAM VESSELS of all kinds built complete, with Hulls of Wood, Iron or Composite. STEAM BOILERS. Particular attention given to the quality of the material and workmanship, and none but first class work produced.

SUGAR MILLS and SUGAR-MAKING MACHINERY made after the most approved plans. Also, all Boiler Iron Work connected therewith.

PUMPS. Direct Acting Pumps, for irrigation or City Water Works purposes, built with the celebrated Davy Valve Motion, superior to any other Pump.

A. ZELLERBACH,

IMPORTER AND DEALER IN

BOOK, NEWS, FLAT, WRITING PAPER.

MANILA, WRAPPING AND STRAW PAPER,

Colored, Poster and Tissue Paper, Also Envelopes and Twine.

509 CLAY STREET.

A few doors above Sansome, San Francisco, Cal.

E. L. G. STEELE & CO.,

Successors to

C. ADOLPHE LOW & CO.,
COMMISSION MERCHANTS.

Agents American Sugar Refinery and Washington Salmon Cannery.

OUR NATIVE WINE SHIPMENTS BY SEA.

PER P. M. S. S. CO'S. STR. SAN JOSE, APRIL 13, 1886.

TO NEW YORK.

MARKS	SHIPPERS.	PACKAGES AND CONTENTS.	GALLONS	VALUE
F Amanet, New York	Walter, Schilling & Co	25 barrels Wine	1184	\$415
E L, New York	"	10 barrels Wine	470	188
L P, New York	"	50 barrels Wine	2373	930
H. Bros & Co, Boston	"	2 cases Wine	116	87
G S O, New York	"	1 case Wine	84	84
E B, New York	"	2 cases Wine	225	202
B D & Co, New York	B Dreyfus & Co	111 half barrels Brandy	3228	6100
C K, New Jersey	"	10 kegs Wine	2790	1250
Goetz Bros, New York	"	50 barrels Wine	2473	1100
D J L, New York	"	75 barrels Wine	3515	1250
C & Co, New York	"	10 barrels Wine	468	185
P, New York	"	5 barrels Wine	237	140
Total amount of Wine			13,944	\$5,891
Total amount of Brandy			3,228	6,110

TO CENTRAL AMERICA.

S & P, Corinto	B Dreyfus & Co	8 half barrels Wine	207	\$170
E F & Co, Corinto	"	8 barrels Wine	390	350
P de L H, Corinto	"	30 cases Wine	150	135
L M H	"	1 barrel Brandy	38	125
L M H	"	4 barrels Wine	180	170
San Jose de Guatemala	"	15 cases Wine	65	50
G L H, Corinto	"	12 cases Brandy	75	125
T T, Corinto	"	15 cases Wine	75	75
N V Co, Corinto	"	40 cases Wine	200	155
J F & H, Amapala	"	36 kegs Wine	539	515
M R, Corinto	"	5 cases Wine	25	25
F M, Corinto	"	1 half barrel Brandy	189	170
M R, Corinto	John T Wright	4 cases Wine	48	70
F M, Corinto	"	20 cases Wine	20	20
M R, Corinto	"	10 cases Wine	210	168
F M, Corinto	"	3 kegs Claret	45	33
P R, La Union	"	2 barrels Wine	35	27
H & Co, San Jose de Guatemala	Wulhaus, Dunon & Co	100 cases Whiskey		600
Total amount of Wine			2,358	\$2,103
Total amount of Whiskey, 100 cases				600
Total amount of Brandy, 12 cases and			85	320

TO MEXICO.

A H & Co, Acapulco	Urrutia & Urrutia	30 cases Wine	150	\$ 91
F J C, Manzanillo	Redington & Co	21 cases Wine	120	84
A E S & Co, Port Angel	Lienthal & Co	2 cases Brandy	5	14
Q A E S, Port Angel	Alberca, Roma & Co	1 barrel Wine	140	132
C H, Mazatlan	"	2 cases Brandy	20	20
	"	1 case Wine	43	32
Total amount of Wine			453	\$340
Total amount of Whiskey, 2 cases and			5	34

MISCELLANEOUS SHIPMENTS.

DESTINATION.	VESSEL.	RIG.	GALLONS	VALUE.
Mexico	Newbern	Steamer	233	\$123
Honolulu	W. H. Bond	Barkentine	425	358
Petropaulovsk	Alexander H.	Steamer	1608	1137
Victoria	George W. Elder	Steamer	91	100
China	City of Rio de Janeiro	Steamer	76	64
Total shipments by Panama steamers			16,755 gallons	\$8,274
Total shipments by other sea routes			2,433 "	1,782
Grand totals			19,188	\$10,056

THE OLDEST WINE HOUSE IN THE UNITED STATES.

John Osborn Son & Co.

NEW YORK. (FOUNDED 1836.) MONTREAL.

Shipping and Commission Merchants.

(P. O. BOX NO. 30, N. Y.) 45 BEAVER STREET, NEW YORK.

Correspondence solicited with Winemakers throughout the State, and also for all California Fruits and General Produce.

We handle all goods as we receive them, and it is the object of all shippers to ship only such wines, etc., as will establish a reputation. As sole agents for PIPER HEIDSIECK and PIPER SEC CHAMPAONE, our importations for the last three years were 125,000 Baskets, or more than three times the importations of other brands imported to the Pacific Coast.

WILLIAM CLUFF & CO.,

WHOLESALE

Grocers and Provision Dealers,

16, 18, 20 & 22 FRONT, Cor. PINE Street, S. F.

All Orders by Mail Promptly Attended to.

THE COOS BAY STAVE & LUMBER CO.

— MANUFACTURERS OF ALL KINDS OF —

COOPERAGE GOODS!

Especially invite the attention of Wine Men to their unsurpassed facilities for supplying packages from a

5-GALLON KED TO A 160-GALLON PIPE OR PUNCHEON.

Our machinery enables us to execute all orders with promptness and economy. Price List on application.

OFFICE: 323 FRONT STREET,

WORKS.....BRANNAN ST., NEAR EIGHTH.

IMPERIAL EGG FOOD

Will Make Your Hens Lay.

IMPERIAL EGG FOOD AND DISEASE CANNOT THRIVE TOGETHER IN THE SAME RUNS

SEE THAT THIS

TRADE MARK



IS UPON

Every Package.

THIS GREAT EGG PRODUCER is prepared expressly to, and does supply all the needed materials for the formation of the egg, as also for bone, muscle and feathers, and by a tonic effect, strengthens the digestive organs and lays the foundation for vigorous, healthy, and therefore, profitable Fowls, fitting them for market a month earlier than by common means, and making POULTRY THE MOST PROFITABLE STOCK ON THE FARM. The Imperial Egg Food has proved the greatest assistance to poultry raisers, its unequal success and popularity having led to cheap and worthless imitations, which fail entirely to produce the material of the egg, or in bringing forward the chicks rapidly, and warding off disease, the Imperial, and none other being constructed on purely scientific and physiological principle. No farmer nor poultry raiser can afford to be without this means of improving the condition of his domestic fowls, increasing their egg production, and making them doubly profitable. Secure some at once, and be convinced of its great value. Complaints reaching us from all quarters to the effect that inferior goods are palmed off upon unsuspecting purchasers, under names so similar to "Imperial" as to be easily mistaken for it, we take this occasion to caution all to see that our Trade Mark is upon every package.

Retail Price—One pound package, 50c.; 2½ pounds, \$1; 6-pound box, \$2; 10-pound box, \$3 25-pound keg, \$6.25.

G. C. WICKSON & CO.,

38 CALIFORNIA STREET.....SAN FRANCISCO

WM. T. COLEMAN & CO.,

COMMISSION MERCHANTS.

SAN FRANCISCO,

NEW YORK,

CHICAGO,

Agency WM. T. COLEMAN & Co.,

Agency WM. T. COLEMAN & Co.

ASTORIA, Or.,

LONDON.

With Agents and Brokers in every Commercial City of Prominence in the Union.

WE MAKE A SPECIALTY OF HANDLING THE

RAISIN CROP OF CALIFORNIA!!

And amongst others we are Agents for

Riverside Fruit Company of Riverside, Miss Mary F. Austin of Fresno, McPherson Bros. of Orange, T. C. White of Fresno.

With many other of the Most Prominent Curers of this State.

Our Facilities for Promptly Placing and widely Distributing Their Produce Can be Ascertained from the Above well-known Curers.

We are also Large Handlers of

ORANGES, DRIED FRUITS, HONEY AND BEANS

IN THE EASTERN STATES.

Advances Made when Required, and Full Information of Markets Promptly Given. Address

Wm. T. COLEMAN & Co.

MARKET & MAIN STS., S. F.

CAPE WINES.

Wynberg Times.

Cape wines unfortunately are in dispute throughout the world, and the result is, that not only is it at the present time well nigh impossible to find a market elsewhere for a staple commodity, which can be produced here in almost unlimited quantity, but the home consumption is seriously restricted by the indifferent quality of the major part of the product of our vineyards. For this state of stagnation and depression there is only one remedy—the improvement in the quality of the article produced. It is true that the high duties levied in Europe act with peculiar force against wine grown in our climate, but the mere reduction of these duties will not in itself open a market for them, except for the purposes of adulteration, unless we can supply an article which will satisfy the requirements of those whom we are anxious to secure as purchasers. Nor will much satisfaction be found in endeavoring to fix the blame for the present unfortunate state of affairs, by accusing the wine-farmer of giving insufficient attention to his trade, or by blaming the merchant for the ruinous course which he has pursued of giving a uniform price, irrespective of quality, and so stamping out any laudable but unremunerative attempt at improvement among the growers. The wine industry in the Cape will never be set on its legs by lamentations over its past glories, or by any self-deception as to the causes of its present decadence; but, like every other trade, it will follow the ordinary laws of supply and demand. If a good article is produced, it will find a market, and the industry will be a source of untold wealth both to the colony and those who pursue it, while as long as the present course of looking to quantity and neglecting quality is followed, the viticultural interest may be expected to remain in a depressed and struggling condition. Among the chief faults of Cape wine enumerated by competent judges are: The earthy taste, which, according to some of them, is largely due to the bad manures used in cultivation; the immature state in which the produce is forced into the market; the use of raw spirit of bad quality to fortify the wine in order to check fermentation, and the want of character in the wine itself, which arises from the way in which the trade is conducted, and which renders it almost impossible to establish a market for any special class of our wine in Europe, owing to the difficulty of satisfying any continuous demand which might spring up for it. Various reasons have been pointed out for this unsatisfactory state of things, some of which are clearly preventable, while others require careful investigation and many experiments before it can be determined whether they can be amended, and what are the fitting remedies. Among the first must be classed the want of care in the preparation of the wine itself. Nearly all experienced men agree that at present most of the cellars and utensils used in them are ill-ventilated and dirty, and that insufficient attention is paid to the selection of grapes for pressing, or to the separation of unripe and damaged grapes from those actually fit for use; while very few farmers take the trouble to separate the stalks from the fruit before treading, as is the universal practice in the best wine-producing countries in Europe; or of classifying the crop according to the quality of the wine aimed at. Further, too little care is taken in the selec-

tion of the sites for vineyards, or to the cultivation of the most fitting kind of grape for the production of fine wines, and its adaptation to the special soil. While care and attention would remove the faults above stated, there are other drawbacks to the prosperity of the industry, which cannot, with justice, be laid at the door of the wine-farmer. Chief among these is the great heat of our climate at the season of vintage, which, while it forces the grape to early maturity, and tends to produce a fruit rich in the most essential constituents of a good must, at the same time operates most disadvantageously by preventing that gradual fermentation of the juice necessary for the development of the finer sorts of wine.

Possibly by a change in the mode of treatment and cultivation of the vines, the ripening of the fruit might be somewhat retarded, and the harvest thrown back to a cooler season, and by the construction of underground cellars for fermenting, the temperature might be kept lower and more equable, but it is clear that the excessive heat which prevails now, and it is feared always will prevail during the vintage, constitutes one of the chief drawbacks against which the wine-grower of the Cape will have to contend, and that it is to this climatic defect that many of the faults of his produce may be justly attributed. Another fatal defect is to be found in the absence of any proper or comprehensive system for maturing Cape wine on a large scale, and for bringing it to market of a sufficient age, and of an even quality. At present the efforts of traders and farmers alike seem to be directed to bringing the crop into consumption as soon as possible, and to creating doctored imitations of European wines. It is unfortunate that these concoctions are the only form, except the costly Constantia, in which Cape wine is known in Europe, and until an improvement takes place in this respect, it is hopeless to expect that a really remunerative market, except for purposes of mixing with and adulterating superior growths, will ever be found for our Colonial produce. So strongly was this recognized by the growers themselves, that a few years ago they established a Joint-stock Association, for the purpose of introducing improvements in the manufacture of Cape wines and buying up and maturing the growths of better quality. Unfortunately, owing to gross mismanagement, the undertaking failed, and put an end to an experiment which promised to be of the greatest value to the Colonial wine industry.

Very little can be done by the Government in the direction of improving the general commercial aspect of the wine trade, which must be left to the tender mercies of the mercantile instincts of those interested in it, who may, perhaps, be trusted to discover some day that it will pay better as an employment for their capital to establish a market for a wholesome wine of age and character, than to obtain a scanty and fitful demand for the immature and brandied decoctions which, at the time when the demand for Cape wines reached its highest point in Europe, succeeded in making the very name of Cape wine a bye-word and a reproach. Or the patriotic efforts of the wine-growers must be invoked, who, undeterred by their previous failure, may be disposed to risk their capital in a fresh attempt to improve the staple on which their living depends, and by so doing take the only step likely to secure a permanent amelioration of their prospects and condition.

The improvement in the cultivation of the vine and in the manufacture of wine, and the experiments necessary to that end, are matters, however, within the scope of Government action, and by turning our attention in this direction we are only following the example of the most eminent wine-producing countries in Europe and America, who have found the establishment of scientific wine stations of much practical value.

It is, perhaps, scarcely reasonable to expect a wine farmer of moderate means, however sincerely anxious he may be to improve his produce, to strike out a new line by adopting experiments which may perhaps hazard his whole crop for the year, or to spend his time in close attention to the production of the varieties of the grape vine, which may take years to bring to any practical issue. He has neither the time nor the money to spare for such operations. All these things, however, and many others, of a like kind, are absolutely necessary, if we are ever to look for an improvement in wine making here, or if we hope to keep abreast of those countries in Europe, or of our own sister colonies in Australia, where capital and intelligence are devoted to this object. More particularly is it desirable at a time of great depression like the present, when the resources of the Colony can scarcely keep pace with the demands upon them, that no stone should be left unturned to improve and develop a long-standing industry, which is eminently suited to our climate, and which holds out a prospect of unlimited expansion, both in wine, brandy, and raisins, which only require care in preparation to become most valuable subsidiary articles of export.

To give wine farmers every possible assistance, the Government has secured the services of an expert from Europe, viz., Baron von Babo, who has already done excellent service to our wine industry by preventing immature and badly manipulated wines from being sent to the Antwerp Exhibition, and who has visited most of the wine districts and made himself familiar with the state of the vineyards previous to the grapes reaching maturity. Proof stations, where experiments in the cultivation of the vine and the manufacture of wine on the most approved scientific methods can be conducted, and from which information and instruction can be afforded to those engaged in this branch of agriculture, are now urgently wanted, and the Government farm "Tokai" should be set apart for these purposes.

Valuable Patent

FOR SALE.

The Claus Improved

GRAPE-VINE TRELLIS.

LATELY PATENTED, ATTRACTS GREAT ATTENTION among vintners everywhere as far surpassing any other form by efficiency and perfection. Generally acknowledged to be a meritorious invention and an unrivaled progress in viticulture, it will pay its application tenfold. It is truly a first-class acquisition.

RIGHTS OF THIS PATENT
FOR SALE BY

AMERICAN PATENT AGENCY,
188 & 190 WEST 5th ST.,
Cincinnati, Ohio.

Full descriptive illustrations, costs, etc., given by the above and the inventor

C. H. TH. CLAUS,
Cor. Iowa & Keokuk Sts., St. Louis, Mo.

GRAPE VINE TWINE

THE BEST ARTICLE

FOR TYING UP VINES

IN THE MARKET.

Put up in Balls of 4 lbs. Each.

12 Balls in a package.

TUBBS & CO.,

613 FRONT ST.,

San Francisco.

MERCHANTS, BANKERS AND MANUFACTURERS SHOULD READ

BRADSTREET'S,

A Weekly Journal of Trade, Finance and Public Economy.

SIXTEEN PAGES EVERY SATURDAY.

OFTEN TIMES TWENTY PAGES.

SOMETIMES TWENTY-FOUR PAGES.

FIVE DOLLARS A YEAR.

THE BRADSTREET COMPANY,

(Business Established 1819—Incorporated 1876.)

Capital and surplus \$1,400,000.

EXECUTIVE OFFICES, 279, 281, 283 Broadway, N. Y.

Merchants, Bankers, Manufacturers and others:—
DEAR SIR: In addition to our Mercantile Agency Reports we are now publishing a weekly commercial and financial newspaper in our name of

"BRADSTREET'S."

This paper is of value and interest to observing business men, particularly merchants, bankers and manufacturers. It does not deal with credits or furnish ratings, but reports, reviews and discusses those matters, domestic and foreign, that have any bearing upon the business of this country. Reporting the crops in detail, investigating numerous industries, criticizing various investment securities and reviewing the markets are special features, while the tariff, money, transportation, legal, bankruptcy, partnership and hundreds of other topics are ably treated, not in the interest of political parties or geographical sections, but in the best interest of the business men of the whole country.

It is emphatically the business man's newspaper.

We solicit your subscription for one year at \$5.

Very truly yours,
THE BRADSTREET COMPANY.

SUBSCRIBE NOW FOR

BRADSTREET'S.

CHOICE

OLD WHISKIES

PURE AND UNADULTERATED.

We Offer for sale on Favorable Terms to the Trade,

CATHERWOOD'S

Celebrated Fine Old Whiskies,

OF THE FOLLOWING BRANDS NAMELY.

"CRANSTON CABINET"

"A.A.A." "CENTURY"

"OLD STOCK"

"HENRY EULL"

"DOUBLE B"

"MONOCRAM"

VERY OLD AND CHOICE, IN CASES OF ONE DOZEN QUART BOTTLES EACH,

"BRUNSWICK CLUB" Pure Old Rye,
And "UPPER TEN."

For Excellence, Purity and Evenness of Quality the above are unsurpassed by any Whiskies imported. The only objection ever made to them by the manipulating dealer being that they cannot be improved upon.

Dickson, De Wolf & Co.

SOLE AGENTS,

SAN FRANCISCO,

CAL.

THE STATE VITICULTURAL SOCIETY.

A meeting of the above Society was held at the offices of the State Commission on 15th inst. Among the members present were: H. W. McIntyre, President; Hon. J. F. Black; F. Pohndorff; Arpad Haraszthy; Dr. Bernard; Professor Hilgard; George Hunsmann; Chas. Kohler; T. Landberger; Manrice Keatinge; A. Grossman; T. D. Cone; D. C. Feeley, E. H. Rixford; Wm. Ruff; Juan Gallegos; F. W. Pohndorff; Hon. J. T. Doyle; Hon. M. M. Estee; E. C. Priber; Captain Charles E. Shillaber; Chas. Wheeler; C. R. Buckland; J. B. J. Portal. The Secretary, E. H. Rixford, read the minutes of the previous meeting and reported that over a hundred members had already joined the Society.

The Treasurer, Charles Kohler, reported that he had collected \$775 and expended \$908.25. Among the subscriptions reported in aid of the fund to defray the expenses of Mr. Charles A. Wetmore, the Chief Executive Viticultural Officer, in Washington were: Kohler & Frohling \$250; Captain Niebaum \$150; Wm. T. Coleman & Co. \$100; J. A. Paxton \$100; C. H. Kirby \$50.

Mr. Estee promised large contributions from the Napa Viticultural Society in aid of the fund, after their next monthly meeting.

The expenditures reported by the President and Treasurer were ratified.

Professor Hilgard pointed out that the table-grape growers were not represented but the omission was rectified.

On motion of Hon. J. T. Doyle the Committee on Nominations and By-Laws was discharged and a new Committee of five was appointed to examine and revise the organization and by-laws of the Society, and, if they deem any change desirable, to report such change. That said Committee be instructed to report at the earliest possible time and that the President call a meeting of the Society as soon as notified by such Committee that they are prepared to report. The following Committee was appointed: Dr. Bernard, Messrs. Haraszthy, Doyle, Estee and Pohndorff. Mr. Haraszthy resigned in favor of President McIntyre. At the afternoon session Hon. J. F. Black presided. Mr. Haraszthy referred to the instructions given to Mr. Wetmore to return to Washington, and stated that there was a movement among distillers of whisky and

other liquors at the East, to oppose any bill in Congress relating to wines that did not permit grain spirits to be used to fortify sweet wines. This would transfer the sweet wine interests to the East, and would ultimately affect our red and other wines. He would rather see any bill defeated than to have any provision of the kind indicated introduced. Should this fortifying of wines be permitted, all our wines would be taken to New York and doctored, and a doctored wine would there be sold at a much less price than we could sell pure wines. Our trade would thus be ruined. Nothing should go into wine except the products of the grape. The desire of the wine growers here was to have a perfectly honest bill passed -- honest toward the Government and to the wine grower. To do this a standard test of sugar was adopted. By this means adulteration with spirits can be easily detected. The great trouble is that our wines, on account of heavy freights, will be exposed to adulteration in New York to counteract the cost of freight charges. If people could once be assured that they can get pure wines at a low price, consumption of wine would immediately increase, and increase very much.

Mr. Haraszthy stated that California brewers had asked for the co-operation of wine makers in receiving a rebate on bottles, corks and caps imported from Europe. On account of the cost of bottles, etc., here, brewers cannot compete with beer from Europe in Australia and other countries. A rebate of 15 or 20 cents per dozen will enable them to sell beers in countries that now buy European beers exclusively. To securing the passage of a bill protecting the wine interest, California will have to submit to some of the demands of Eastern wine makers, for the reason that the Eastern men have more influence in Congress than we have. The Pleasant Valley Wine Company of New York was in favor of the adulteration act, and thought that with a few slight modifications they would have an excellent bill.

Mr. Portal said he would be in Washington at the beginning of May and he promised to assist the California delegation and the Commission in the passage of the Green Bill. He further promised assistance from the Santa Clara Society and said that he anticipated a big fight from the cherry juice importers at New York.

Mr. Keatinge said that when he was soliciting funds in Lake county he did not get a single refusal from a merchant, a mechanic or a laboring man, but all saw the necessity of supporting an industry which directly and indirectly supported themselves. He had not one single refusal. [Hear! Hear!]

Mr. Pohndorff drew attention to the value of the work done by Mr. Wetmore. The bill prepared was not for California alone but it was a national bill. While we were asleep here, there were thousands in the East who were working hard for our cause.

Mr. Portal endorsed the remarks relative to the value of Mr. Wetmore's work. He was a shrewd worker, intelligent in all his enterprises and indefatigable in his duties. While he (Mr. Portal) went to Washington for his own benefit, he would help Mr. Wetmore as much as possible because he knew him to be the right man in the right place and that there were few who would have done as much good.

Mr. Haraszthy warned the members to be on the lookout for mildew as he expected plenty in the subsequent dry weather.

Mr. Estee believed that frequent cultivation after wet weather and that late ploughing were beneficial against mildew as it prevented the excessive radiation of heat and caused the more uniform distribution of moisture.

Mr. Haraszthy said that each year he had lost about a third of his crop from peronospera, which was generally called sm-burn; the leaves shriveled and curled, became red and finally dropped off, showing that they were unhealthy.

The Committee on By-Laws, read their report which was adopted, Mr. Haraszthy suggesting that the new By-Laws be submitted for ratification at the next meeting, in order that every member might be notified of the proposed changes.

President McIntyre, on closing the meeting urged the necessity, on the part of members, for individual efforts to increase their membership, and that the local societies should work with the Central State Viticultural Society.

Order your copies of the Report of the Fourth Annual State Viticultural Convention by postal card to E. C. Hughes & Co., 511 Sansome Street, San Francisco.

GOODYEAR'S "COLD SEAL" Rubber Hose, For Sale by All Dealers.



COODYEAR RUBBER CO. R. H. PEASE, JR., AGENTS. S. M. RYNNON, 577 and 579 Market St., SAN FRANCISCO.

LANDSBERGER & SON,

Successors to LANDSBERGER & CURTISS, 123 California St., AGENTS FOR THE PURCHASE AND SALE OF

Viticultural Products and Vintners Supplies. AGENTS FOR

KIDD'S INTERNATIONAL DISTILLERY, DES MOINES, IOWA. Correspondence Solicited

W. F. CHAMBERLAIN, JR. T. A. ROBINSON.



Life Scholarships, \$75.

DAY AND EVENING SESSIONS. Ladies Admitted into all Departments.

No Vacations. Send for Circular.

ESBERG, BACHMAN & CO.

IMPORTERS OF Chewing, Smoking & Leaf Tobacco. HAVANA CIGARS AND LEAF.

225, 227 & 229 California St. and 122, 124 & 126 Battery Street.

SAN FRANCISCO. And Nos. 7 & 9 NORTH FRONT ST. PORTLAND.

THE AMERICAN SUGAR REFINERY COMPANY,

MANUFACTURERS OF THE CELEBRATED CUBE SUGAR,

Supplies Only Exporters and the Jobbing Trade.

This Company manufactures all the Grades of HARD and COFFEE SUGARS and SYRUPS. Special attention given to the making and Packing of Loaf Sugar for Export.

208 CALIFORNIA STREET, SAN FRANCISCO, CAL. E. L. G. STEELE, President.

Dr. MINTIE

THE SPECIALIST,
No. 11 KEARNY ST., San Francisco.

Treats all Chronic, Special and Private
Diseases with Wonderful
Success.

THE GREAT ENGLISH REMEDY



Is a never failing cure for Nerve Debility, Exhausted Vitality, Sexual Weakness, Spermatocoea, Lost Manhood, Prostatitis, Impotency, Paralysis and all the terrible effects of self abuse, youthful follies and excesses in mature years, such as loss of Memory, Lassitude, Nocturnal Emissions, Aversions to Society, Dimness of Vision, Noises in the Head, excess in drinking intoxicating liquors, the vital fluid passing unabsorbed in the urine, and other diseases that lead to insanity and death.

Dr. Mintie who is a Regular Physician Graduate of the University of Pennsylvania, who will agree to forfeit \$500 for a case of this kind the Vital Restorative, (under his special advice and treatment) will not cure, or for anything impure or injurious found in it. Dr. Mintie treats all Private Diseases SUCCESSFULLY WITHOUT MERCURY. Consultation Free. Thorough examination and advice, including analysis of urine, \$5. Price of Vital Restorative, \$1.50 a bottle or four times the quantity, \$5; sent to any address upon receipt of price, or C. O. D., secure from observation, and in private name if desired, by Dr. A. E. Mintie, 11 Kearny street, San Francisco, Cal.

Send for pamphlet and list of questions.

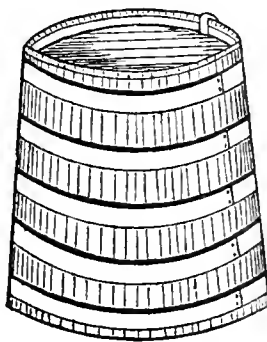
SAMPLE BOTTLE FREE.

Will be sent to any one applying by letter stating symptoms, sex and age. Strict Secrecy in regard to all business transactions.

DR. MINTIE'S KIDNEY REMEDY NEPHRETICUM, cures all kinds of Kidney and Bladder Complaints, Gonorrhea, Gleet, Leucorrhea, etc. For sale by all Druggists; \$1 a bottle, 6 bottles for \$5.

DR. MINTIE'S DANDELION PILLS are the best and cheapest DYSPEPSIA and BILIOUS cure in the market. For sale by all Druggists

REDWOOD TANKS



F. KORBEL & BROS.

727 BRYANT ST., S. F.,
Or at NORTH FORK MILL, Humboldt Co., Cal.

SHERWOOD NOVELTY STEEL HARNESS

WE PAY THE FREIGHT.

This is the Greatest Novelty ever offered, and a boon to Farmers. Traces and harnesses made away with.

Collar \$1.50
Lines 2.25
Bridle \$2.25
EXTRA.

PRICE \$17.50
Sent by express.

TRUMAN, ISHAM & HOOKER, San Francisco.

IN NOT SATISFACTORY WE PAY ALL FREIGHT.

J. N. KNOWLES, MANAGER EDWIN L. GRIFFITH, SECRETARY.
ARCTIC OIL WORKS.
MANUFACTURERS OF
Sperm Whale, Elephant and Fish Oils, Skid Grease,
WHALE OIL SOAP.

ESPECIALLY ADAPTED FOR VINEYARDS AND FRUIT ORCHARDS.
OFFICE—28 CALIFORNIA STREET, S. F., CAL.

EL PINAL VINEYARD,
Stockton, Cal.

Cuttings and Vines For Sale of the following varieties:
PETIT BOUSCHET, MONDEUSE, VERDOL, ALCANTE BOUSCHET, BOAL, CABERNET FRANC, MALBECK, CABERNET SAUVIGNON, MANTO DE PILAS, MANTO CASTILLANO, PEDRO XIMENEZ, MALMSEY, LENOIR, PALOMINO, VERDELHO, TANNAT, PERUNO, VEEA.

And other recently imported varieties, including True Port and Sherry varieties from Spain and Portugal.
GEO. WEST, Stockton, Cal.

TO CLARIFY WINES,
(BOTH WHITE AND RED)
WAHL BROS.
GRANULATED ISINGLASS
HAS NO EQUAL.

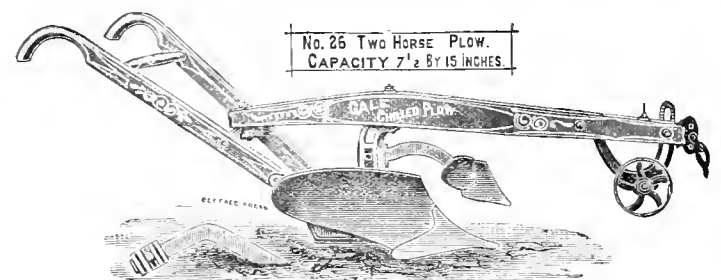
It is SUPERIOR and CHEAPER than any other ISINGLASS in the Market.

Try It. Send for Sample.
JOHN T. CUTTING & CO., Agents,
23 CALIFORNIA STREET, San Francisco.

VINEYARDISTS AND ORCHARDISTS,

WE CALL YOUR ATTENTION TO OUR
Celebrated Gale Chilled Plows.

WHICH ARE THE HARDEST CHILLED IRON PLOW MANUFACTURED,
And the Lightest Draught Plows Ever Used. Will Scour Any Kind of Soil.



GALE'S CHILLED METAL

Presents itself as the important feature, being harder than any other plow metal and so fine in fiber that it will receive a polish almost equal to a mirror. Its fiber does not run parallel with the surface of the casting, as with cast iron and steel; but its direction is through the mold-board, thus bringing the friction of the soil on the end of the fiber or grain. This feature avoids all reasonable possibility of imperfections being hidden below the surface.

The wood-work of the Gale's is made from the best quality of White Oak timber, carefully selected with reference to the use intended. The beam is placed in the center of its work, thus securing a center draught under all circumstances. It is secured to the plow by two bolts—one through the slotted standard head in the center of the beam, and the other through the handle brace at its rear end.

We guarantee our Gale Chilled Plow to do as good or better work than any chilled plow in the market. If after two days' trial, any of our Gale's Plows should not give perfect satisfaction, it can be returned to us and we will refund the money.

For prices and other information address

BAKER & HAMILTON,
San Francisco and Sacramento.

The Contest Settled.
The Documents Speak
For Themselves.
Below We Publish the Awards as
Given, Diploma, Gold Medal
and Special Mention.

HIGHEST AWARD

-- AT THE --
New Orleans Exposition

ANTISELL PIANOS

-- OF --
SAN FRANCISCO, CAL.

IT WILL INTEREST THE MUSICAL PUBLIC AND persons interested in the purchase of Pianos to read the following Jury's award and congratulation of the United States Commissioners at the New Orleans Exposition to the T. M. Antisell Piano Company of San Francisco, Cal:

THE WORLD'S INDUSTRIAL AND COTTON CENTENNIAL EXPOSITION.
NEW ORLEANS, MAY 29, 1885.

MESSRS. T. M. ANTISELL PIANO CO.—GENTLEMEN: At the closing of the World's Industrial and Cotton Centennial Exposition, allow us to congratulate you on your success in being awarded the highest award of merit for your Pianos over all American and foreign exhibitors and competitors. That a California manufacturer should win the first prize for the Best Piano in the World we consider well worthy of mention by United States Commissioners of this Exposition.

Frank Bacon, Pres't, Bd. U. S. Com., Kan as,	
George L. Shoup, " " Idaho,	
Robt. W. Furnas, " " Nebraska,	
John C. Keffeler, " " Ohio,	
R. E. Flemming, United States Com'r, Dakota,	
John S. Harris, " " Montana,	
E. W. Allen, " " Oregon,	
F. M. Murphy, " " Arizona,	
C. W. Noble, " " Michigan,	
W. H. Sebring, " " Florida,	
P. M. Wilson, " " N. Carolina,	
J. C. Truman, " " New York,	
E. Spencer Pratt, " " Alabama,	
E. J. Koche, " " S. Carolina,	
C. L. Barrow, " " Louisiana,	
Henry Merrill, " " Wyoming,	
P. Langhammer, " " New Mexico,	

THE WORLD'S INDUSTRIAL AND COTTON CENTENNIAL EXPOSITION, NEW ORLEANS.

JURY REPORT
Application No. Special.
Group Class.....
COMPETITION.

The undersigned jurors in the above entitled class having carefully examined the exhibit made by the ANTISELL PIANO COMPANY OF SAN FRANCISCO, CAL., and all competing exhibits, concur in recommending the award of a FIRST CLASS MEDAL AND DIPLOMA, THE HIGHEST AWARD OF MERIT FOR PIANO EXHIBIT FOR STRENGTH, DURABILITY, EXCELLENCE OF TONE, AND FOR THE SUPERIOR QUALITY OF LUMBER USED IN THE CONSTRUCTION.

Dated this 27th day of May, 1885.
JAS. C. TRUMAN, Jurors.
FRANK BACON, " "
GEO. L. SHOUP, " "

It will be observed that the President of the United States Board of Commissioners, Governor Bacon of Kansas, was also a member of the jury that gave the Antisell piano award; also Colonel Truman of New York and Colonel Shoup of Idaho. These gentlemen not only signed our jury report, but also the special mention. We thus give positive proof of our victory. Four other awards are claimed by piano manufacturers, but we have never seen any evidence of their premiums, not even to the value of a leather medal—simply their own assertion. False telegrams and publications from New York won't humbug Californians. It won't do to say that the Antisell pianos were not entered for this reason or another. No piano could be got into the exhibition unless regularly entered. New York manufacturers are trying to break down our awards, as they don't like to see San Francisco carry off the honors.

T. M. Antisell Piano Co.
24 to 28 ELLIS ST., S. F.

HONOLULU**CASTLE & COOKE,****SHIPPING; AND****COMMISSION MERCHANTS**

Honolulu, Hawaiian Islands.

—AGENTS FOR—

THE KOHALA SUGAR CO.,
 THE HAIKU SUGAR CO.,
 THE PAPAIOU SUGAR PLANTATION
 THE WAIALUA SUGAR PLANTATION
 THE PAIA PLANTATION
 A. H. SMITH & CO.,
 THE N. E. M. LIFE INSURANCE
 CO. BOSTON,
 THE UNION INSURANCE CO.
 OF SAN FRANCISCO,
 THE GEO. F. BLAKE MFG CO.,
 STEAM AND VACUUM PUMPS,
 D. M. WESTON'S CENTRIFUGAL
 MACHINES.

WM. G. IRWIN & CO.

SUGAR FACTORS AND

COMMISSION AGENTS

Honolulu, H. I.

—AGENTS FOR—

HAHALAU PLANTATION.....Hawaii
 NAALEHU PLANTATION.....Hawaii
 HONCAPO PLANTATION.....Hawaii
 HILEA PLANTATION.....Hawaii
 STAR MILLS.....Hawaii
 HAWAIIAN COM'L & SUGAR CO.....Maui
 MAKEE PLANTATION.....Maui
 WAIHEE PLANTATION.....Maui
 MAKEE SUGAR CO.....Kaua
 KEALIA PLANTATION.....Kaua

Agents for the

OCEANIC STEAMSHIP COMPANY.

GEO. W. MACFARLANE. H. R. MACFARLANE.

G. W. MACFARLANE & CO.

IMPORTERS

COMMISSION MERCHANTS,

—AND—

SUGAR FACTORS.

FIRE-PROOF BUILDING, 52 QUEEN STREET,

Honolulu, H. I.

—AGENTS FOR—

THE WAIKAPU PLANTATION.....Maui
 THE SPENCER SUGAR PLANTATION.....Hawaii
 THE HELIA SUGAR PLANTATION.....Oahu
 THE HIELO SUGAR CO.....Maui
 HIELO SUGAR MILL.....Maui
 PUULOA SHEEP RANCH CO.....Hawaii
 NURLES, WATSON & CO.,.....Glasgow
 Sugar Machinery,
 OHN FOWLER & CO'S STEAM FLOW.....Leeds
 and Portable Tramway Works,
 GLASGOW AND HONOLULU LINE OF PACKETS.

B. J. TRUMBULL. CHAS. W. BEEBE.

R. J. Trumbull & Co.

GROWERS,

Importers and Dealers in

SEEDS,**TREES AND PLANTS.**

419 & 421 Sansome St.,

Ret. Clay & Commercial, San Francisco

WHITE HOUSE,

CORNER THIRD AND HOWARD STS.,

San Francisco, California.

MRS JAMES. T. WHITE,

Formerly of the White House, Nunnally Avenue, Honolulu, having purchased the St. Lawrence House, at the above address, containing 30 rooms, all fully furnished in suites and single, offers many advantages to travelers to and from the Islands. The house is located but three squares from the Palace and Baldwin Hotels. Terms very moderate.

ANGLO - NEVADA Assurance Corporation

OF

SAN FRANCISCO, CAL. FIRE and MARINE.

Subscribed Capital \$2,000,000.

OFFICE: 410 PINE ST.

DIRECTORS:

LOUIS SLOSS, J. W. MACRAE,
 J. B. HAGGIN, W. F. WHITFIELD,
 J. ROSENFELD, E. F. EYRE,
 J. L. FLOOD, E. L. GRIFFITH,
 G. L. BRANDER, J. GREENEBAUM,
 W. H. DIMOND

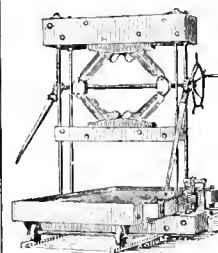
This Corporation is now prepared to receive applications for Fire and Marine Insurance

G. L. BRANDER.....President
 J. L. FLOOD.....Vice-President
 C. P. FARNFIELD.....Secretary
 J. S. ANGUS.....Assistant Manager

Bankers The Nevada Bank of San Francisco.

WORTH'S IMPROVED PATENT COMBINED TOGGLE LEVER

—AND—

SCREW PRESS.

I desire to call the attention of wine and other makers to my Improved Press. With this Press the movement of the follower is fast at the commencement, moving one and a half inches with one turn of the screw. The last turn of the screw moves the follower one-sixteenth of an inch. The follower has an up and down movement of 20 inches, with the handle curving by which you can fill one while the other is under the press, thereby doing double the amount of work of any other press in the market. Model on exhibition at the offices of the Board of State Viticultural Commissioners. Also manufacture Horse Powers for all purposes, Enslage Cutters, Plum Puffers, Worth's System of Heating Barries by hot water circulation. Send for circular.

W. H. WORTH,

Petaluma Foundry and Machine Works,
 Petaluma, Sonoma Co., Cal.

Testimonials from I. DeTurk, Santa Rosa; J. B. J. Portal, San Jose; Ely T. Sheppard, Glen Ellen; Kate F. Warfield, Glen Ellen; J. H. Drummond, Glen Ellen; Joseph Walker, Windsor; John Hinkshaw, Fullerton; Wm. Miller, Galesville; J. & F. Muller, Windsor; R. C. Still, Galesville; Lay Clark & Co., Santa Rosa; Vasey Freres, Old San Bernardino; J. Frank, William Allen, San Gabriel; James Emlyson, R. & J. J. Gold, Healdsburg; W. Metzger, Walter Phillips, Santa Rosa; J. Lawrence Watson, Glen Ellen; Geo. West, Stockton; can be had by applying for printed circulars.

HERRMANN & CO., HOP MERCHANTS.

Importers and Dealers in

CORKS, BREWERS' AND BOTTLERS' SUPPLIES,
 SODA WATER AND WINE DEALERS' MATERIALS

ALEX. FRIES' & BROS. COGNAC OILS, ESSENCES AND FLAVORS.

331 SACRAMENTO ST. San Francisco.

S. P. COMPANY. SHIPPING.

QUICK TIME AND CHEAP FARES

To Eastern and European Cities

Via the Great Trans-continental All-Rail Routes.

— OF THE —

SOUTHERN PACIFIC COMPANY.

(PACIFIC SYSTEM)

Daily Express and Emigrant Trains make prompt connections with the several Railway Lines in the East,

CONNECTING AT

NEW YORK AND NEW ORLEANS

with the several Steamer Lines to

ALL EUROPEAN PORTS.

PULLMAN PALACE SLEEPING CARS

attached to Overland Express Trains.

THIRD-CLASS SLEEPING CARS

are run daily with Overland Emigrant Trains.

No additional charge for Berths in Third-class Cars.
 Tickets sold, sleeping-car Berths secured, and other information given upon application at the Company's Offices, where passengers calling in person can secure choice of routes, etc.

Railroad Lands

FOR SALE ON REASONABLE TERMS.

Apply to, or address,

W. H. MILLS, JEROME MADDEN,
 Land Agent, Land Agent,
 C. P. R. R. SAN FRANCISCO, S. P. R. R. SAN FRANCISCO

A. S. TOWNE, T. H. GOODMAN,

General Manager, Gen. Pass. & Tkt. Agt.

SAN FRANCISCO, CAL.

**THE SOUTHERN PACIFIC CO.,**

Respectfully invites the attention of TOURISTS AND PLEASURE SEEKERS to the SUPERIOR FACILITIES afforded by the "Northern Division" of its line for reaching the principal

SUMMER AND WINTER RESORTS OF CALIFORNIA

WITH SPEED, SAFETY AND COMFORT.

Pescadero, Menlo Park, Santa Clara,
 San Jose, Madrone Mineral Springs,
 Gilroy Hot Springs.

-MONTEREY-

"THE QUEEN OF AMERICAN WATERING PLACES"

Camp Goodall, Aptos, Loma Prieta,
 Monte Vista, New Brighton, Sequel,
 Camp Capitola, and

SANTA CRUZ.**PARAISO HOT SPRINGS.**

EL PASO DE ROBLES

HOT AND GOLD SULPHUR SPRINGS,

And the only Natural Mud Baths in the World.

This Road runs through one of the richest and most fertile sections of California, and is the only line traversing the famous Santa Clara Valley, celebrated for its productivity, and the picturesque and park-like character of its scenery; as also the beautiful San Benito, Papajo and Salinas Valleys, the most flourishing agricultural sections of the Pacific Coast. Along the entire route of the "Northern Division" the tourist will meet with a succession of Extensive Farms, Delightful Suburban Homes, Beautiful Gardens, Immense Orchards and Vineyards, and Luxuriant Fields of Grain; indeed a continuous panorama of enchanting Mountain, Valley and Coast scenery is presented to the view.

Characteristics of this Line:

GOOD ROAD-BED. STEEL RAILS. ELEGANT CARS.
 LOW RATES. FAST TIME. FINE SCENERY.

Ticket Offices—Passenger Depot, Townsend Street,
 Valencia St. Station, and No. 613 Market Street,
 Grand Hotel.

A. C. BASSETT, H. B. JUDAH,
 Superintendent, Asst. Pass. and Tkt. Agt.

REWARD OF \$10,000 TO EVERY PERSON
 furnishing valuable information of school vacancies and needs. No trouble or expense. Send stamp for circulars to—CHICAGO SCHOOL AGENCY,
 185 South Clark Street, CHICAGO, ILL.
 N. B. We want all kinds of Teachers for Schools and Families.

OCEANIC STEAMSHIP COMPANY.

Carrying the United States, Hawaiian and Colonial mails for

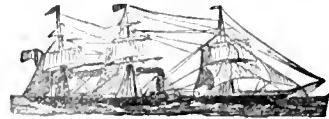
HONOLULU,

AUCKLAND,

and SYDNEY

WITHOUT CHANGE.

The splendid new 3,000-ton steamer

**ALAMEDA**

Will leave the Company's wharf, corner Stewart and Polson streets

SATURDAY, MAY 30th, at 2 P. M.
 Or immediately on arrival of the English mails.

FOR HONOLULU AND RETURN

The Steamer

ZEALANDIA Sat. Apr. 24th

For freight or passage apply at office, 327 Market at
 JOHN D. SPRECKELS & BROS.,
 General Agents.

OCCIDENTAL & ORIENTAL STEAMSHIP COMPANY.

for JAPAN AND CHINA.

Steamers leave Wharf, corner First and Brannan sts., at 2 o'clock, P. M., for

YOKOHAMA and HONGKONG.

TOUCHING AT HONOLULU,

And Connecting at Yokohama with steamers for Shanghai.

1886.

STEAMER. FROM SAN FRANCISCO.
 BELGIC.....TUESDAY, MAY 11th
 SAN PABLO.....TUESDAY, JUNE 1st
 OCEANIC.....TUESDAY, JUNE 22d

EXCURSION TICKETS to Yokohama and return at reduced rates.

Cabin plans on exhibition and Passage Tickets for sale at C. P. R. Company's General Offices, Room 74, corner Fourth and Townsend streets.

For freight apply to GEO. H. RICE, Freight Agent, at the Pacific Mail Steamship Company's Wharf, or at No. 202 Market Street, Union Block.

T. H. GOODMAN, Gen. Passenger Agent.
 LELAND STANFORD, President

D. H. PORTER, A. W. PORTER,

Porter Bros. & Co.,

Successors to

MEAD & RUNYON, COMMISSION MERCHANTS,

404 & 406 DAVIS STREET,

P. O. Box 2169. San Francisco

Consignments solicited and special attention paid to shipping orders.

Branch in Los Angeles, Cal.

FREDK WM. LUTTGEN,

COMMISSION MERCHANT.

(P. O. BOX 629) 51 Warren St., New York.

Solicits consignments of California Produce, and orders for the purchase of Merchandise, generally.
 Eastern Agent for Eclipse Champagne.

JAMES HUNTER

GAUGER OF WINES AND SPIRITS.

(Established 1831.)

OFFICE—323 FRONT STREET.

San Francisco.

BONESTELL
AND CO.
PAPER WAREHOUSE
 IMPORTERS OF ALL KINDS OF
 Printing and Wrapping Papers
 401 & 403 SANSONE ST., S. F.

THE SAN FRANCISCO VITICULTURAL MERCHANT.

THE ONLY VITICULTURAL PAPER IN THE STATE.

Devoted to Viticulture, Olive Culture, and other Productions, Manufactures and Commerce of the Pacific Coast.

VOL. XVI, NO. 2.

SAN FRANCISCO, MAY 7, 1886.

PRICE 15 CENTS

DISCUSSIONS ON FERMENTATION.

[From the Report of the Fourth Annual State Viticultural Convention.]

Captain McIntyre.—This last year the North wind carried up the temperature of the grapes very suddenly to a high degree. As to the matter of not being able to deduce any definite rule, or not being able to tell what would be the result of a given fermentation under given conditions I am sure that I did not intend to say, for I firmly believe that given certain conditions which are fixed and known we can tell what would be the result of fermentation, or the attempted result of a fermentation of the grapes. That cannot be otherwise. But the puzzle of this last year's fermentation is the same to me as to my friend Mr. Crabb, and others who met with the same difficulties. In years before we found that our fermentations began and went through without difficulty. This year, under the same conditions apparently they stopped. One tank would stop and another would complete the fermentation. That I was able to carry the fermentations through notwithstanding the difficulties it is true but it was done by methods of re-fermentation etc. and to Mr. Wetmore and others I am indebted for the advice which I followed, for I was enabled to get much good from their suggestions, and was enabled to get a complete fermentation.

Now I believe it is possible for us to tell just exactly what a fermentation will be, provided we know exactly the condition of the must and the condition of the atmosphere around it. We had less work when we commenced the vintage. The must seemed to be in a ripe condition, but three days of extremely hot weather seemed to over-ripen the produce. For that reason we had too much tannin or too little; too much or too little acid; too much or too little albuminous matter. The year seemed to be one of surprises. The temperature in the cellar would remain at 73 or 74 and the tanks would go up to 90 or 92 degrees and go through perfectly, while adjoining tanks with 87 degrees were stopping. Now what was the cause? Would not anyone be glad to know and yet we could not say. We had no data on which to base our reason. We could not tell what we were doing for the reason that we could not tell what the conditions were in the must without a proper analysis which it would be impossible to have at that time. Later on we seemed to get at it by supposing that it was a lack of acid, for I found that by adding a certain part of tartaric acid to the must I was enabled to get a perfect fermentation. In other cases I tried tannin and got a perfect fermentation. In other cases all the remedies seemed to fail except the adding of fresh juice from the grape, that did not fail. One experiment I carried on that I did not care to. It was a package of Malvoisie that I intended to distill. It started in to ferment and stopped at 10 per cent. We crushed fresh grapes and added them and

it started in to re-ferment and went up to 90 and stopped at 92 at 8 per cent. We started again to re-ferment it went up to 90 and stopped at 5 per cent. It was then drawn off in separate packages of 400 gallons each and about 50 gallons of fresh must added. The fermentation started again and I thought it was going through all right but it stopped at 3 per cent. the temperature having been up to 87 degrees. I drew it into 1000 gallon tanks upon the top of 150 gallons of fresh must which had been allowed to get into active fermentation when fermentation recommenced and it has gone through and apparently is all right to-day. That is why I say we are all at a loss. If we know the conditions we can tell what is going to be the outcome, but that we can tell what the conditions are to be with a strong, hot North wind I am very much in doubt.

The question seems to be just how we are going to keep the proper temperature to the finish. The Professor says those who have kept a low temperature in the tanks have succeeded and those who have kept a high temperature, or who have kept a high temperature in their tanks have made failures. Now what we want to know is how to keep a low temperature. We have no trouble if we keep a low temperature, but I believe the conditions of the grapes last year were such that the high temperature was absolutely unavoidable and could not be helped. The conditions were so abnormal that you could not control the temperature. No amount of stirring would keep it down. You could bring it down and directly it was boiling again. I tried it. I tested the temperature with the string thermometer which is considered the best, as it allows the must to pass through it and took it out and read it. I had one, two or three or four men on a tank continually stirring. I have taken out of one tank and put it into another receptacle. Of that which I took out I filled three other vessels, and out of the three, two went through and one stopped and the wine went sour after I got all the work done. By persevering work all the time we got our work done but it could not be any guide, for under the same circumstances there would be a failure here and a success there, under the same conditions, the same temperature and the same stirring. The point is, is there some way by which we will be able to possibly control the temperature. Before this year I had thought it was a matter that could be much more easily controlled.

Mr. E. B. Smith.—In the remarks of Mr. McIntyre and Mr. Haraszthy last evening the fact was developed that there had been no stoppage where there had been blends of different kinds together. I think, as I recollect it, no one here complained that they had any trouble with tanks where they had blended different grapes. I know in my own case I carried the Mission through by blending it with Burger. If that is a fact probably that may be one of the means to remedy the difficulty, for by blending two or three kinds together you can bring

in contact a grape that is exceedingly ripe with one that has a larger amount of acid, that is less ripe with a smaller degree of sugar. If that will remedy the difficulty it is important that we should plant such grapes as ripen at different times where we can bring together the must at different degrees of ripeness, and in that way correct the difficulties of fermentation. I believe myself that is our best remedy, and in my own case in planting my vineyard I had that in view. My vineyard is situated differently from any I ever saw. It is all hill and I have no kind of grape but what is growing on different soil with different exposure, and in many places the hill has a southern and east-rn exposure, which is warm, and in another it has a north-rn exposure which is cold, and in every block or variety of grapes I have just that difference of condition, so that if one portion of Zinfandel is too ripe I have other parts that are not so ripe; and if all my Zinfandel are over-ripe I have other varieties that are less ripe. I think if that is born in mind in setting out the large vineyards, we may in that way possibly in a great measure correct the difficulties of bad fermentation.

Capt. McIntyre.—I noticed during the process of our fermentation that the grapes which were from our own vineyard where there was no frost, that is where it did not have any effect, that they were the most difficult of fermentation, while the grapes that I received from vineyards a little frosted and were not quite so forward when the North wind struck them went through all right. I believe it is due to the peculiar condition in which the grapes were at that time. Take the Grenache, with me they fermented all right. They were rather low, so with the Mataro and the Carignan.

Mr. Portal.—There were a few points stated yesterday by the gentlemen who were speaking on fermentation, as to the condition when the grapes should be picked and crushed. I heard with very much surprise from one of the gentlemen that it has been the rule in France to leave grapes sometimes three or four days before fermenting. This is the first time in my life that I have heard such a statement. It is contrary entirely to all authorities and all practice of French vineyardists, at least in Pas Cruz where they make the fine wine. They take their grapes in at once, and even crush them in the vineyard. The statement is now made that they lay three or four days to cool. That I think is one of the first causes of our failure; if you want a good fermentation you must take the grapes at 22, 24 to 27 per cent., and ferment them at once. This is only a matter of finance, a matter of accommodation and facility for doing the work. Whenever they successfully make wines they have to provide for these necessities. They are so careful in France that the grapes shall be picked just when they are ripe that in the mountains where the peasants do not know just when their grapes are in the proper condition they are compelled by law to wait until the priests announce that the grapes are ripe, and then they must all pick them

on that day. Why? Because they know the importance of picking the grape just at the right time. If a man says, "I have not the men, I have not the time, and I can't afford to pick them all at once," let him lay the blame where it belongs, but I don't lay the fault on the country or on the wine. That must be understood and not throw the fault on the country for it is a climate that France cannot boast of having—a summer for picking grapes such as we have. It has been said that the temperature of the cellar, whether open or closed, built of stone or wood, had very little to do with the fermentation. I have heard however of no gentlemen who have tried blending grapes who did not have a fermentation. I found that with Gr-nache, Mataro and Carignan that I got a good fermentation, but that the Zinfandel alone was not a good fermentation, and those who have tried Zinfandel alone and have not had good fermentations should not discourage us for the future. If we attend to the requirements of the business we shall have good fermentation. (Applause.)

Mr. Wetmore.—Mr. Portal is unquestionably right about the practice in France of picking the grapes in the warm part of the day, and crushing them while they are warm, and crushing them immediately and almost as fast as they can. The only men that I have seen allow them to get cool are some of the Italians in this city, and then they get regularly mildewed, and everybody is laughing at them for doing it in that way. I had intended to talk to-night of the work that we had done for the purpose of demonstrating this same principle, but it is getting late. But I want to direct your minds to one or two things that come out of all this discussion. The first is that you will see that there is not anybody here that knows anything about what was the cause of the difficult fermentations last vintage. The next thing is that there is nobody to show us the remedy, except to propose, as Professor Hilgard says, to have some analysis. Now these remedies that are suitable for the correction of the difficulties must be on hand at once, and to wait for an analysis is altogether impracticable. Mr. Shillaber telegraphed down to me that the tanks were sticking, and what was the matter. He did not expect them to stick and other tanks were going through. It was too late to get an analysis of the must. This analytical work cannot be brought to bear on the subject at the time, but there must be one process explained in advance as to what should be done. If Professor Hilgard can tell in advance, what to do with tanks that are going to stick, why there is our remedy, and it might be of some account. If he could tell in advance whether there is too much albumen it might be of practical value. But he does not know and we do not know until it has occurred. At first it was suggested that there was not albumen enough in the wine and more was added. But that did not seem to do any good. Then we tried to find out what was the matter, and

all this work had to be done in a hurry. I never went through such a siege in my life as I did at that time. We were in correspondence with wine growers all over the State. Last year the supposition was advanced by Professor Hilgard that we wanted more heat when the wine would ferment. He cited a case at the University that would not go through for lack of heat. This year he would have a lower temperature.

I suggest, again, with the risk of being criticised, as I have every year, when I suggested something for study, and not as a rule, that this may be the cause; that owing to the climatic change that took place on every side, the germs that produced the fermentation were in an unhealthy condition, requiring something to put them back into normal working order. If that theory is true, it would account for the fact that in the presence of the old pounce in a large tank, by simply adding new yeast and now must we did not get a satisfactory result, in many cases, for the reason that the yeast was already diseased by what was already in there. There are a thousand ways of supposing how the trouble occurred. But this idea is also corroborated by the influence that the tannin seemed to have on it. We have tried a great many yeasts in the office to test them. Whenever we added tannin to the yeast in fermentation, we seemed to have a healthy sound, vinous development, and no disease. Now that train of thought in looking for the remedy was suggested to me, by reading the circular of a house in Paris that sells what they call oeno-tannin, a tannin derived from the grapes, but how I do not know. We sent some time before the vintage to France and got a small sample, which happened to come in very handy at the end of the year, for we tested it to see whether their claim was correct. They claimed that it would not only increase the color, but assist fermentation or promote it, and the important use was not, as some supposed, in clarifying wines, but in fermentation. It was indispensable, they claimed, in the manufacture of wine from raisins, and especially in the southern part of France where they had a high degree of sugar in the must. After getting the material here, it occurred to me that we had something similar in the conditions of our must: a great deal of the sugar in the grapes had been converted almost to the consistency of sugar in raisins, which is known to be difficult to ferment. We therefore tried it, and in every case we had a fine healthy fermentation and no disease, but it was too late to attempt it on a large scale. We had not material enough—we had only a small lot. It was too late to suggest the general use of tannin. We however made experiments to see whether the ordinary tannin that can be purchased, made from nut galls, would operate in the same way. We took two tubs of yeast to see how great an amount of tannin it would take to arrest the fermentation, as we had been led to believe that tannin arrested fermentation. We began by adding small portions, and kept adding until we got a pound and a quarter of tannin to a hundred pounds of liquid, made of water and sugar, a little cream of tartar and tartaric acid and the more we put in, the better was the fermentation all the time. We did not find a limit, as the material gave out, and we had something else to do. It has, however, thoroughly satisfied me, by our many rapid experiments, that there was no danger that the use of tannin would check fermentations. I learned in France when I was there in 1875 that even ordinary tannin was coming into use as a substitute for gypsum. I wrote about it at the time, but not having had these difficulties to encounter for the last three or four years, it partially escaped my memory. I believe in that one it is alone you have got your remedy. In most of the grapes, where there is a high degree of sugar, there is a deficiency of acid, and I believe that the varieties of grapes that are known to be difficult to ferment, ought all to ferment by the addition of tannin. We ought to try and get the pure wine tannin, still I do not think that the nut gall tannin is objectionable, for after using it we seemed to lose all trace of it.

On this subject I don't think books will aid you much. A few years ago I thought there was a good deal in the scientific books on the subject of wine making that was clear and distinct, but the more I read them, the

less I find their deductions to be true. So I read in a well known work that the albumen goes down with the precipitate. I used several glass jars to see what the effect of the precipitate was in the bottom, and the wines that were lowest in tannin had most in the precipitate. The addition of the tannin disappears to the taste and produces a perfectly bright and clear wine.

The President.—There is one mechanical reason why it would be less in the bottom than otherwise, that is, because the tannin has the power of contracting the sediment.

Mr. Wetmore.—I noticed we had not as much loss in those that we put the tannin in as we did in the others. It may have been still in the pounce, and less there. I am however satisfied that that is our leading remedy, as a precaution, and it is a good one, anyhow. As I explained yesterday—there may be some here now that were not here yesterday, and I will therefore re-state some of the things I then said—the effect on the color is peculiar. The natural tannin of the wine produces the color. It is so intimately associated with the color, that in adding tannin, you clarify immediately if you do not want to reduce the color. I think that is corroborated by the fact that I found in many cases where the wines were of a deep color, that by frothing they would run over, and a great deal of color be lost. I put that foam into a resolution of tannin and it was all dissolved.

The next thing I found that seemed to show the line of remedies was, what Mr. Crabbs suggested the other day. It was one of the last things to occur to him during the vintage, that we crush our grapes too much where there is a high degree of sugar. In all cases where I have seen but little crushing, I have seen the least trouble in the high degrees of wine. The lot of wine that went through so evenly for Rollo Wheeler was not crushed at all. There was 26 per cent. sugar and it stood in the sun where he said the temperature in the must went up to 110 degrees. Up in Livermore the wines that were fermented there, by those who were making their first wines this year under the most favorable circumstances—none of them having a decent cellar to work in, were mostly simply stemmed, and but slightly crushed. Why that operates so I will not undertake to say. It may be by reason of the pulpy matter being distributed so far from the must, and the juice being distributed so evenly through the pulp. The fermentation starts more gradually, but I won't undertake to say how it happens, but such seems to be the case. Then a little cream of tartar, I believe, in many wines, especially in those which on analysis show the probability of being a little light in acid, such as the Mission, would be of great advantage. The highest authorities on the subject of live germs say that potash is the essential element for the life of the yeast plant; without it you cannot ferment. The addition of cream of tartar is reasonably assumed to be a good thing, for those who ferment in tanks that have had cream of tartar sticking around the sides seem to have good fermentations. Tartaric acid in wines that seem to be deficient is also advised. I know some who have tried more objectionable remedies, which I would not recommend, but they were very useful to study as experiments to understand the action on the yeast; for instance, in some cases I found a little sulphuric acid assisted. The sulphuric acid is taken up by the potash in the wine and forms sulphate of potash. If it is not in excess it will not stay in the wine as free sulphuric acid. How that operates to benefit the wine I do not know, but sulphuric acid does operate to advantage, and especially so in wines of high degree. I had, this afternoon, a little yeast here to show you an experiment. To one lot I added a little sulphuric acid and left the other without, and you will find that sulphuric acid does not stop fermentation. The influence of the acid, however, over the health of the yeast, seems to be the important thing. I find in Bassett's book, in the year 1852, upon a discussion dated that time, where he was first giving his views to the public about fermentation, or when his views were first promulgated, that he does not believe in many germs, but in one germ and the different forms of disease he considered to be the result of the diseased forms of that germ. He demonstrated very satisfactorily, and I have tried his experiments, that where the germs

were assisted they would not run into diseased forms. If you take any ordinary yeast and put some chalk into it you get a lactic fermentation. It stirs the life where the diseased germs are. While the yeast germs were active the others did not act at all. It was only in the case of their being diseased that the trouble occurred. This is partially corroborated by the difference after our first rains. We had evenness of fermentation up to our first rains, but as soon as we got grapes after the rain, the acetic fermentations started in, and we had trouble with our experiments. Wine from Cloverdale that was shown yesterday, but which is sound, started at once with the acetic fermentation. We sprinkled chalk on it many times, and it seems to be all right now that it has gone through, indicating that there was something wrong in the development of the yeast. There is too much faith given, I find, to the idea of the action of the yeast as usually understood. It is often assumed that Pasteur has explained all these things. He has not done anything of the kind. He has only explained that under certain forms of development, or changes in wine or must, at different times, certain germs are found; for instance, he found that the lactic fermentations was produced by certain germs, and that is all he found. He does not say anything more about it. In his argument of the mycoderma vini and the mycoderma aceti he finds that certain wines go to vinegar by the action of the germs that can be found there. The treatment of white wines that are intended for Sherries, with the proper amount of tannin, such as is gotten from the seeds of the grapes will probably very largely preserve it.

As I was saying, when you come to examine the books of all those who have written on the subject, you will find lots of rules that are in conflict with others that are based on the opinions of the man who writes them, and not on scientific investigation. You will find in the books that must went ferment with 36 per cent. of sugar. We have fermented the condensed must this year with 35 per cent. You have been told that you cannot ferment out more than 14 or 15 per cent. of alcohol. We have fermented out 16 per cent, and how much more we might have I cannot tell. We have been told that fermentation will stop when there is 20 per cent. of alcohol. There are cases where actual verification seems to upset the theories. Mr. Haraszthy was telling me of a case where the wines would not ferment themselves, and then by the addition of a little water, they will ferment and turn to vinegar. These are difficulties that are not explained. Our difficulty is, that the world is confused with rules that have no foundation except in the locality from which they emanate. In a certain place you can do a thing that in another place with the same grape you cannot do. Pasteur does not pretend to explain why the Pinot grape would turn to vinegar and Trousseau wines would not. It occurred to me to try whether our Trousseau would do the same, and I cannot make the vinegar out of them to save my life. I find that property belongs to grape, but what that property is nobody seems to know. The reason of that probably is, that in Spain and the south of France and Italy, there has not been, until recently, any real research into these difficulties, and the books that have been written upon the subject have been written on the Rhine in the district of Burgundy and Bordeaux, where the summer rains make the fermentations easy. We have to learn something from practice that we cannot get from reading. We met a gentleman who was engaged in trying to restore some of those wines that we were trying to get through, a man from Sitz, and he did it with a pretence of a great mystery. We found, on examination, that his whole secret was in mixing and pumping, and the wines went through readily. His practice was with wines that were not going through to mix those that contained one per cent. of sugar with those that had three per cent., and pumping them over and over, and working them in that way. When I had asked some of these Frenchmen as to what was their practice in the cellar they said that they whipped them and whipped them. They gave them a severe whipping, as they termed it, and kept it up all the winter, and that kind of disturbance of the wine

seems to break up the wine into its element and complete the fermentation. So that I should say the proper thing to do immediately after such a vintage, as we have had, and nearly all our vintages, is the frequent racking during the winter, for we save by this the difficulties of a little unfarmed matter in our wines. The racking of wines, I believe, will have to be followed a great deal more frequently than has been the custom. At our little cellar, on the 4th of January, before I went away, I observed that about four or five days before a rain-storm, when the wine was perfectly clear, a clouding over and muddiness. I observed the same thing in the cellar under my house where I had six or seven hundred gallons. I observed the wine become cloudy, indicating climatic changes. It is reasonable to assume that the changes of last year injured them in some way. I have observed, every time we had a rain-storm coming on, the same change in the fermentation. In other words, we have during our winter a succession of so many springs, so that in the spring time, just as the weather has changed, when our wines begin to start up, they get cloudy. The wine should have been racked before that time. Now, prior to that, in the winter, there are several changes different to those of France, and after every appearance of muddiness, I think we ought to rack. This racking of the wine in the spring, most of them, I think, will be omitted during the coming month. Just as soon as they settle down and the weather becomes clear, or soon after that they ought to rack again. In France they have a general rule to do it in June; then in August, racking it by the action of the sap in the vines, for when the cessation of the sap takes place, it is well known by the wine growers that it is time to rack. This occurs usually in August, the latter part of August, when the leaves are getting brown the wine is becoming muddier again, then repeat the racking. Then just before the rains, rack again and keep that up. We have yet to construct our rules. The French have theirs already established. It is a good rule to rack after one of these disturbances and before another. The reason of this lies in the wine, for it is within itself that it creates the trouble. There are more or less dead germs, diseased, and it is from these diseased germs we mainly find the diseased fermentations.

The experiments that were undertaken in regard to sherries we believed would be of the greatest importance. Sherry as you all understand is wine put into a cask and the bung left out so that the atmosphere can work upon the wine. The cask is never filled as for other dry wines. Without the action of the air you would not have any sherry. A large part of the wine however, would turn to vinegar under that treatment. Now, experiments show that from the same ground the product of one vine can be treated in the manner I have indicated, and another cannot. It is consequently purely a matter of experiment, to find out which varieties are suitable for the making of sherries. There are however local causes that of course influence the work. Last year I saw a report of wine from Eldorado county; Zinfandel claret that was kept for eight months on tap without any sign of sherry being formed. It seemed to be a district that could naturally keep an ordinary wine a long time. Dr. Stillman told me of a sample of second crop of Zinfandel, which though he had had it in an open shed all the time, and the cask not full, did not spoil. The same wine in one locality will go to vinegar where others can be kept.

We have undertaken to test some of our products that seem to bear a relation to the sherries of Spain. The first was our Golden Chasselas, which gives excellent promise. Verdelho we know will make good sherry. We have also tried some Sauvignon. Colombar seems to have a peculiar tendency to keep in that way. Those that we succeed with would be suitable for planting. I have some wine on exhibition. I do not know whether it has been tried or not, that I have kept for two years from a white wine made by Mr. West at Stockton. It was given to me with a couple of barrels of wine to use for my men. Part of it I used, and the I found it would not turn to vinegar by exposure, and I have moved it around considerably. Finally before the fall, as it was getting into a drinkable condition, I

fortified it, but before that it had not been fortified at all.

I mentioned this, for it is a line of industry that has not been touched at all. This is a country that ought to make good sherry. What you have to do is to take some of the wine that you have made, which you think has some-what of the sherry properties, and leave the bung loose, and put the cask in a place where it gets plenty of heat, but not too much. Put it in the kitchen near the stove if necessary. I caution you, however, if you undertake these experiments, not to be frightened if you have some little active fermentation. It all disappears. I had that experience, and at one time thought that my wine was utterly spoiled. Now it is truly delicious and of a fine flavor. Another thing I noticed, probably incident to the cramped quarters of our office. We made a lot of wine under the same difficulties that Prof. Hilgard did in small packages. It is a great deal of trouble to do it in tanks, and this year we tried in tubs. At the time of our last convention, we found several packages that positively smelt of vinegar, and we rejected them. All we rejected we put into a passage way, for convenience, we supposed they were utterly ruined and sour. They lay in the passage way unnoticed for want of time to dispose of them, and we did not think to look at them until this summer. We then brought them out and found them in perfect condition with no trace or smell of vinegar. I find that state of affairs also referred to in one of the books which I have read on the subject—that such manifestations are found elsewhere. It is not necessary to be scared if you find a little vinegar formed. It may form and cease, and the excess of acetic acid will disappear.

The Zinfandel Grape.

Recently there was considerable discussion as to the origin of the Zinfandel grape. Mr. Haraszthy's claim that it was a Hungarian grape being disputed by other grape growers. As a continuance of this vexed question it is interesting to have the opinion of a recognized foreign authority. Professor Dr. Roesler, of the (Enological Experimental Station at Klosterneuberg, near Vienna.

This gentleman has written to Mr. Arpad Haraszthy as follows: "Let me thank you for the copies you sent me of the San Francisco MERCHANT, which I have read with the utmost interest, especially concerning the history and first introduction of the Zinfandel grape into New England and California. As I know that the merit of first having introduced this grape into California is due to your family, you would oblige me infinitely by sending me some more details about your Zinfandel grape which, as I have read, is chiefly used in the vineyards of California.

I have your letter relating to the origin, as well as those of other gentlemen who claim the honor of first having introduced this grape into California, and who assert that the Zinfandel has long before been found growing in the Eastern parts of America. It is doubtless of the same origin as your Zierfandler of Austria. You, no doubt, will be able to tell me whether this grape first originated in Hungary or whether in Austria, and to which of these countries we may look for its original home."

Mr. Haraszthy has always claimed that our Zinfandel was a Hungarian grape, and first brought to California by his father in 1852 direct from Hungary already rooted. The above passage from Dr. Roesler's letter tends to prove the correctness of Mr. Haraszthy's statement about the origin of the grape and some old publications that we have seen also bear out this idea, and the records, in Mr. Haraszthy's possession, of the importation of the Zierfandler from Hungary, agree with the opinion of Dr. Roesler.

ADULTERATED BEVERAGES

Correspondence between Representatives of Wine and Brandy and Grain Distilling Interests.

WASHINGTON, D. C., April 21, 1886.

The following correspondence is of interest in determining the harmonious relations existing between those wine and brandy producers and distillers of grain spirits, who desire to maintain honorable relations with the public and to check dishonest trade in adulterated compounds.

CHAS. A. WETMORE,

Chief Executive Officer, State Viticultural Commission of California.

LOUISVILLE, April 15, 1886.

T. H. Sherley, Esq., Chairman Committee on Manufacturers, Board of Trade and Vice-President Kentucky Distillers' Association, Louisville, Ky.

Geo. T. Stagg, Esq., President, Carlisle, O. F. C. Distillers, Frankfort, Ky.:—GENTLEMEN:—Permit me to refer again to the subject of our interview of this morning, and to explain briefly the substance of the legislation demanded of Congress in the interest of genuine wine producers.

Our most pressing needs are, viz:

1st. Legislation to prevent fraud and imposition in the wine trade, compelling the products, which are known as imitation, bogus or compounded wines, to be sold under stamps which shall identify their true character to all purchasers, and suppressing entirely all such as contain adulterations known to be deleterious to the public health; wines that are pure to be so marked that public confidence in them may be established, with stringent penalties for false markings.

2d. In the making of genuine sweet wines, the privilege of distilling a portion of our grape products, free of tax, to obtain pure wine spirits to fortify such sweet wines according to commercial standard with limitations to such privilege as follows: the wines so fortified not to contain after fortification, including the natural strength of the wines as produced by fermentation, more than twenty-four per cent. of absolute alcohol. No wines to be so fortified, free of tax, except such as are absolutely sweet and showing not less than four per cent. of sugar according to tests made with Balling's must scale after the distillation of the spirit; this privilege to be limited to the original place of wine making and to apply only to pure wines made from grapes and to wine-makers who distill their own wine spirits. In case of wines intended for exportation, however, fortification with wine spirits, free of tax, withdrawn from bond, for any kind of wine and to any extent demanded by foreign markets, under the supervision of the Internal Revenue Service, with provisions against fraud and to prevent the re-importation of dry wines without payment of the tax on the spirits used in fortification.

In connection with this brief statement I refer you to the printed copy of resolutions adopted at the last meeting of the State Viticultural Commission of California, of which I am a member and the authorized executive officer.

We have recently been informed that an effort has been made to obtain consent of parties interested to the support of a bill permitting the use of any spirits, withdrawn from bond, in fortifying any kind of wine to the limit of twenty-four per cent. of absolute alcohol, free of tax. Such a bill would be fatal to the production of genuine wines,

would destroy the sweet wine production of vine growers while fostering the production of imitation goods, and would lead to unlimited stretching and adulterations of dry wines; moreover, it would prevent the use in wines of the genuine wine spirits of the vine-grower and wine-makers on account of the exceedingly low price of other spirits when free of tax. In other words, such a bill might be advocated by those who desire to compel wine-makers to use grain spirits in sweet wines instead of the products of the vineyards and by compounders of artificial wines, but could never be advocated by the vine-growers. We know we have to contend against the selfish interest of the latter class of spurious wine-makers; but we do not believe that the distillers of grain spirits desire to extend the use of their products by sacrificing the interests of the vine-growers. It has been reported, nevertheless, that some one professing to represent distillers of grain spirits, has antagonized the demand of the sweet wine-makers, threatening opposition of the distillers unless the privilege of fortification, free of tax, be extended so as to include their products. We believe that this collision has been the result of a misunderstanding of the question. The interests of grain distillers are not antagonized by the genuine wine-makers; on the contrary, our sympathies are with them in respect to many important points, having in view relief from oppressive laws and the improvement of the quality of goods on the market. Such antagonism as has been reported to be threatened, would, if the report be true, lead to resistance that would surely be unfortunate for all concerned. The vine-growers will resist with all their influence any effort to permit the use of grain spirits, free of tax, in fortifying wines. The reason why we need the free use of wine spirits in fortifying sweet wines, and why we would oppose such use in dry wines for domestic trade have been fully explained to you.

This letter is addressed to you to ascertain whether in making the demands which are set forth, there is any reason why any distillers should oppose us, and with the hope also that it may elicit from you some expression positively encouraging us by your sympathy. If we have your sympathy and influence in these matters, we shall confidently hope that the relations between our industries will be such as to secure by harmonious action other laws in which we shall be more mutually interested.

Respectfully yours,

CHAS. A. WETMORE,

Chief Executive Viticultural Officer of California.

LOUISVILLE, KY., April 15, 1886.

Chas. A. Wetmore, Esq., Washington, D. C.:—DEAR SIR:—Your favor of the 15th, in regard to Internal Revenue laws proposed to be enacted by the Congress of the United States, regulating the manufacture of pure wine and brandy on the premises of the vine-grower, is at hand, and in reply would say that after having carefully read it, it meets my approval.

Yours respectfully,

T. H. SHERLEY.

CARLISLE & O. F. C. DISTILLERIES,

FRANKFORT, KY., April 16, 1886.

Chas. A. Wetmore, Esq., Vice-President and Chief Executive Officer, State Viticultural Commission of California, Washington, D. C.:—SIR:—After duly considering your written communication addressed by you to

our Mr. Stagg, in which you set forth the legislation desired by the vine growers and brandy distillers in the interest of pure, healthful wines and brandies, and for protection against spurious imitations and poisonous adulterations and compounds, we take pleasure in saying we heartily wish you success in your efforts, and will cheerfully lend you any aid in our power to that end. Genuine wines, brandies and whiskies are pure. Pure wines, brandies and whiskies, when matured by age, are healthful, and their use, to the exclusion of bogus manufactured compounds sold as wines, brandies and whiskies, will do more to prevent drunkenness and its attendant evils, and to promote temperance and its attendant blessings than can ever be attained through prohibition, local option, or high license.

If Congress would make a law prohibiting the adulteration of all kinds of wines and spirits, intended for consumption as beverages, or use as medicines, it would be a deserved protection to the interests of honest vine-growers and distillers, and a much-needed protection to the health of all consumers, whether as beverages or as medicines.

Distillers of fine whiskies generally will endorse your proposed measures, and we think they should assist you by their influence with their Representatives and Senators in getting early and favorable action on them.

Yours truly,

E. H. TAYLOR, JR., Co.,

By GEO. T. STAGG,

President.

The National Viticultural Convention.

The Convention of the vine growers of the United States, the call for which was issued in February last, will be held at the Agricultural Department building in Washington, opening on Tuesday, the 18th inst. and continuing four days. The exposition of grape products, wines, raisins etc. will be in an adjoining hall of the same building and at the same time. All exhibits from States East of the Rocky mountains should be addressed to Mr. Chas. Vander, 909 7th street Northwest, Washington, D. C., the local member of the committee, who has kindly consented to take charge of exhibits until they are placed in the exhibition hall. Addresses will be delivered before the Convention by the Commissioner of Agriculture, Hon. Norman J. Colman, Prof. C. V. Riley and some fifteen or twenty others prominently connected with viticulture in the United States.

Exhibits from the Pacific Coast States should be sent to C. A. Wetmore at Washington, D. C., care of W. B. Moses, 527 11th St.

B. F. CLAYTON,

Chairman Com. on Organization.

Mr. C. B. Turritt, the ind-fatigable chief of the California exhibits at the Louisville and New Orleans Expositions, paid us a pleasant visit this week. Mr. Turritt has probably done more towards popularizing California, and making its wealth and resources known elsewhere, than any other ten men in the State.

We learn that there will be a large representative exhibit of California wines and raisins at the National Convention to be held in Washington. This is as it should be.

Mr. James Mills, manager of the Union Steamship Company of New Zealand, left for the East and England on April 30th.

COLLECTING STATISTICS.

[From the Report of the Fourth Annual State Viticultural Convention.]

Mr. Morse.—Mr. Chairman, ladies and gentlemen:—What I have to say to-night will be more in the nature of an appeal to our viticulturists to assist in the work which we have already begun. You are probably all aware of the work that was inaugurated by the commission last summer. At the time some circulars were sent out, which outlined the plan that they intended to follow, which you know embraced a knowledge of nearly all the facts relating to viticulture. In the first place we were to collect statistics in regard to the acreage, variety of wines, ages of different vines, the production of with the total amount for the state, the manner of getting rid of products, and also the general movement through and out of the State. Besides that, we expected to get information regarding the tillage, the cost of land and the facts of irrigation, and in fact everything that would be included under a general viticultural survey. You will see at first sight that the work contemplated was altogether too much to be comprehended in one season. The intention was to distribute these circulars to each one of the viticultural inspectors throughout the State, and as we received the report from them, to send a special agent or inspector through the country and make corrections or tabulate the results that were given, so as to have no two reports covering the same ground. The reports were sent out in the early part of June, but I am sorry to say that only a very few of them have been responded to as yet. Therefore the plan of our work was defeated. After this we sent out blanks for acreage. On these blanks were spaces for the different varieties of vines, and also for the acreage of each vineyard of from one to six years old, and all vines over that were to be comprehended under the title of "full bearing." As the result of that attempt, we have reports I think from 158 districts, but some of them are not as they should be. There still remains a large number of districts not heard from in the counties most fully reported. In Napa, Sonoma, Santa Clara and other counties, the reports have not been sufficient to make any estimates from them; I have taken such reports as I have received from counties nearly finished, and compared them with the reports given in the assessors' returns for 1881, and they seem to indicate that there are about one hundred thousand acres of vines in the State. To show the necessity of carrying this work out, this same acreage was reported about four years ago in the assessors' report. The results that we get from those counties that are most fully reported, are very interesting in showing that the reports that come from the assessors' offices are not fully to be relied upon, for instance, we have had Los Angeles County reported as having twenty-five thousand acres. Now in the only trip that was made to that county, a report of nearly all of the districts, obtained and shows the total summation not equal to 15,000 acres. We have from Contra Costa by the assessors' returns about three thousand acres. That county has been reported very full, and it will scarcely show two thousand acres. The same way in some other counties. Placer county is reported by the assessors to have 2200 acres and it will fall very much short of it. This merely shows that the reports that we have based our calculations on so far are not in any case to be relied upon.

I have here another table which is the summation of reports, handed in by the different inspectors, and from which I will read the totals of a few districts. I have taken quite a number of the counties that are more fully reported, and in these we have 31,000 acres of vines that were planted in the years 1855, 1861, 1863, 1861, and those previous to that are considered full bearing vines. This shows an increase in the planting up to 1863, and since that it has gradually decreased. Of the 31,000 acres we have at present about half of them bearing. So that in the next three years the bearing capacity of these vineyards will almost double. In 1863, for instance, there were, out of the 31,000 acres, 5,772 acres planted, which will be in bearing in another year. The planting has since then gradually decreased until out of the 31,000 acres we had last year but 3,600 acres. From

that you can see the rate at which these vineyards will come into bearing for the next three years.

Regarding the production of different vineyards we are not, of course, able to get, unless we have special agents to visit each of the wine cellars. I passed through Los Angeles district and obtained the total tons bought by the larger wine cellars, and I know we have there less than a million and a half gallons of wine, and I believe the county is reported at something like four or five millions.

The whole work that we have thus far done points to over estimation, not only of the products but the acreage. It is interesting to see also that some of the counties make rapid increase in certain districts, for instance, some of those that were reported from San Bernardino county, have filled up very rapidly. Some of the interior counties, which have been reported very minutely, the increase has been a very great one. But scarcely any of these are making the rapid increase that they were some time ago. For the last year or two the number of acres that have been planted is much less.

The main question that we want to urge on the viticulturists is that they should give more assistance in this work. Out of the 150 inspectors we have reports from less than fifty. We must have more co-operation from those who are interested in the work before it can be carried on with any success. There is another point, to which we would like to have some attention paid. In collecting the facts, and making a statement of them, they should be a little more particular. With a large number of reports there is a certain amount put in as unclassified. If we wish to get a correct estimate of the different acreages this work must be done a little more minutely. There are quite a number of interesting points which naturally come from the reports, which could not be very readily summarized, or would be of no interest to state as it would simply be a mass of figures, but in the future we hope to be able to tell almost from a single sheet the total acreage of each variety, for each county and each district. We also expect to have the acreage for each year with the amount of production that we might expect from each of these varieties. It is to this end that we hope all who are interested in viticulture will assist us in doing this work. Not only those who are appointed inspectors in the different districts, but those who are owners of vineyards, can easily assist by handing in the acreage, not only of their own vineyards, but of the district. A large part of the work will have to be done by a special agent, who will go through the country and call upon the different ones and ask them to canvas the sections in which they are living. This plan was adopted in one or two counties, but the result has not been quite as satisfactory as desired, but reports are coming in slowly all the time; by extended correspondence we hope finally to obtain a result which will be of interest to the whole State.

Mr. Portal.—Is there any appropriation to pay those special agents to go around the country and get these statistics?

Mr. Morse.—I believe not.

Mr. Portal.—How can the State and the Commission expect to get men to devote their time, several weeks, if not months, to attend to this without compensation. It would require a man of considerable capacity also. It would have to be a very generous man that could give such time as would be required.

Mr. Morse.—The manner in which we expected to get that information was simply this; there was to be a general inspector who was to collect the results obtained by different local inspectors, who, knowing all the residents in their section, can appoint men in different parts of the country to report on half a dozen or a dozen vineyards in their immediate neighborhood. These reports could then be handed to the inspector of that district, where they can be corrected and arranged in proper form, and then sent to the proper inspector, or one who is charged with the collating of results. This is very important because in the future we have to look to the question of what we are going to do with the products. If we do not know what to expect we cannot make any calculation for it, but by knowing the exact age and acreage we

can do so. For instance, in some of these districts we can tell now exactly the amount of product that we shall have for the next four or five years.

The collecting of these details will require a good deal of time and must be done through the districts by some one who will take time to go through the country and collect them.

Mr. Husmann.—I have been appointed by the Agricultural Commission as State Statistician of California. The work that you mention comes directly in the line of my duty, and I shall be very happy to co-operate with this commission in any way that I possibly can. I will remark here that you can get a full estimate of production, and an accurate one, of Napa county, from a recent publication of the St. Helena Star. I suppose you have that already. I have found it so far very difficult to obtain any reliable information. I have addressed circulars for the purpose of gathering agricultural statistics through the County Assessor, but so far I have received replies but from very few of them. They do not even respond, although the necessary blanks are sent together with a franked envelope, but many of them are very neglectful.

Mr. Morse.—I have written to the assessors of the counties where we have no inspectors, and I have not heard from half of them; they gave no result at all.

Prof. Hilgard.—As the vines are part of the realty, and are taxed as such, I cannot see how there could be any guess-work and how it is the assessors do not have the returns. The tax register should show.

Mr. Wetmore.—It is not to our interest to raise that question. [Laughter.]

Dr. Stewart.—I had a paper sent me, such as Mr. Morse has referred to, and I had to submit to considerable questioning when attempting to get any information. My neighbors wanted to know who it was that was asking this information. I told them it was the State Viticultural Commission. They then wanted to know by what authority they were asking such information, and when I satisfied them as best I could on that point then they objected to giving the statement, for they said if we give a proper statement the assessor will come upon us and we shall be taxed. I was met with one objection after another until I was on the point of giving it up. We got a few statistics together which I supposed had been sent here, until I opened a book that belongs to our society and I there found them carefully docketed.

Mr. Morse.—That is a great difficulty in collecting these statistics. A good many people seem to think this commission has no right to ask for the information. They do not seem to consider that they themselves are the ones who receive the benefit. The only way is to keep on and from constant inquiry reach as exact a result as possible. Some places where I have needed but a single vineyard to fill out a certain district, I have sent four or five letters to the superintendent and neighbors and I have not found out yet.

Mr. Husmann.—I shall be very happy to use your blanks if they are furnished to me.

Mr. Estee.—I have not seen them in our district.

Mr. Morse.—They have had them but have not reported. If the vineyardists themselves will take the matter in hand and report their districts it will greatly hasten the matter.

Mr. Estee.—I think it would be a good plan, if you will allow me to make the suggestion, to send to the presidents of the local clubs, they will give it more attention.

Mr. Wetmore.—Yes, but there are only about three clubs in the whole State.

Mr. Estee.—The St. Helena, and our clubs are still alive.

Mr. Morse.—We will see that they have the blanks.

Mr. Estee.—We will send in the returns just after the assessor makes his assessment. [Laughter.]

Mr. Wetmore.—I want to corroborate the remarks of Mr. Morse. This has been the *leit motif* of the commission since we have been organized. There is hardly a week passes but what some one wants statistics, they want to know how many acres we have in vines, and it seems foolish and absurd that we cannot get it. If you expect the assessors to get it, when you do not want the assessors to know you have a vineyard, how can you get the estimate. We ought to be

able to know how much the crop will yield three years from now, with a reasonable margin of doubt, how much is in Zinfandel in white wine and in red wine. We ought to know what we are doing, and we have made every effort on every side for three years; we have sent to the vine growers; we thought this year by getting one man to visit and see the people that we would accomplish something. We have got, in a certain degree, where we can utilize these reports, by making estimates of what we do not know, but the reports are not forthcoming. For instance, Alameda county reports 4962 $\frac{1}{4}$ acres; Sonoma county has up to the present reported 1153 acres. [Laughter.] Such reports are simply useless, and it is just about as useless so far as the assessors' reports are concerned. Mr. Portal asks where the money is coming from. The State furnishes us with a very little money, and to those who are willing to help we give a corresponding secretary to organize. The vine growers must help. Mr. Portal is one of the inspectors, and it will only cost him a Sunday afternoon's work to take up and report his neighborhood and perhaps walking around a few miles to see his neighbors. In appointing inspectors, we appointed some who we thought were public spirited enough to assist in the work in their districts, and then we appointed as many more as were necessary to fill up the gaps in the county. Wherever there was a vineyard out of a certain district we have tried to get an inspector.

Now in Livermore valley, the editor of the Livermore Herald has, on his own volition, given to half an acre, every variety of grape that is grown there; and he publishes it in his paper. We know to a half an acre every variety of grape that is growing there. The same thing can be done in other parts of the State if there is a public spirit manifested. It would take fifty thousand dollars to collect statistics if we had to send men out to do it.

Mr. Morse.—Some of the inspectors have written that they will send reports in soon.

Captain McIntyre.—I have some statistics already collected from my neighbors, but they are not all I should like and therefore have not returned them. Some object to giving the figures because their vineyard is an old one, that they do not want it to go on record, for, next year, by grafting it will be in a different form. All sorts of excuses are given by them. You cannot appreciate that kind of work until you get out among the people and find out just where they stand. The information required is of a nature that you cannot oblige a man to give it; if he gives it at all it must be of his own good will. You may sit down with him in a corner and if he happens to have a glass of good wine in his cellar you may chat a little with him, and by argument may assist in overcoming his prejudices, and by a little adroit questioning, perhaps find out that he has a little patch of Mataro, or a little Sauvignon or Semillon, but you may have to give it up as utterly hopeless task. When I have completed my report to my satisfaction I will cordially give the information.

Mr. Wetmore.—This is not a complain, against the inspectors; if they cannot get the information from the vine growers they cannot give it.

Mr. Estee.—I tried that when I was President of our club two years ago and I found the only way was to guess at it. [Laughter.] We have plenty of people who are afraid to tell what they have got. They say "If I tell you and allow it to be published that I have 20 acres of Mission grapes and only 15 acres of foreign varieties I could never sell my wine in the world, for I have to sell this for all Zinfandel." That is about the truth of it and it is very difficult to do the work and seriously it is a very hard task and I can fully appreciate what Mr. Morse says. It is very difficult to find out from many people right in my own neighborhood; they don't want people to know how many acres they have in vines; for fear the assessors will find out, as if they would not find out anyhow. I never knew anything that an assessor would not find out.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

THE ANTI-BOGUS WINE BILL.

The following is an extract from a letter of the Secretary of the Vine Growers' Union, B. F. Clayton of New York, indorsed by the President and Vice President of the Union, to the Hon. Wharton J. Green, Congressman of North Carolina, relating to the Anti-bogus Wine bill:

"It now becomes my duty to call your attention, and the attention of your subcommittee, to a phase of this question that I hoped might be passed in silence. REGARD for the good repute of American wines for purity, and for the material interests of those who are upholding the high standard of quality which they enjoy with the general public, would seem to prompt a good deal of caution in dealing with this question of adulteration and falsification; and the friends of the bill would not be justified in making a complete exposé of the methods of those engaged in this disreputable business unless the gage of battle were thrown in our faces. Unfortunately such is the case in this instance, and we shall accept the challenge.

"I will say a word in behalf of the great body of American wine-makers, and it is with pride and pleasure that I state what I know to be true of them, that, with few exceptions, they are men who are sincerely devoted to their calling, and pursue it with a patriotic devotion and honest purpose that is worthy of the highest praise. They number within their ranks many of the noblest and best men who live on this continent, and whose lives and works will be an honor in the age in which they live. It is also true that the great bulk of wines made in this country are pure and wholesome products, and such are fully entitled to the esteem in which they are held; and, further than this, the public may rely with safety upon the maintenance of the high standard in quality and purity in the future.

"But what shall I say of the counterfeiters who are trying to supplant these wines with their poisonous compounds made with a few or not any grapes? These men may be divided into two classes; the first represent large capital (for humpage) and assume and claim to deal in straight grape wines, and demand recognition as honest dealers in honest goods. The second is composed of the scum of humanity, who are simply 'crooks,' and who make no pretense that their goods are straight and made from grapes, but sell them boldly without let or hindrance as imitation wines, made by compounding chemicals, drugs and spirits. The first is the most dangerous of the two classes, for their dishonest practices are carried on under the mask of respectability.

"Both are combined against this bill. They are partners in the fraud against the consumer and exchange goods, one with another, and aid and abet each other, and naturally appear together here in the capital (of New York), to cry down our measures as a 'piece of extravagance only calculated to vex the revenue officers and inflict needless expense upon the Government.' They are stealing about Washington in their stocking feet; their whisperings are heard in the corridors of the Capitol and in the ante-chamber of the Cabinet officers, falsely claiming to represent the domestic wine interest. They assert that the 'public are not asking any protection against adulterated beverages; that the American wine trade is flourishing and needs no legislation; that 'the demand is fully up to the supply.' In short, they simply wish to be let alone.

They dread the revenue officer of the Government in their cellars; they shun investigation; they dread the light. As the burglar dreads the policeman's hand, as the murderer dreads the hangman's noose, so do these cornorants dread the hot damnation of public opinion, that would wither their nefarious business, as with fire, were it thoroughly exposed. The friends of true wines and honest dealing, regard their presence there in Washington as a menace and challenge, and we propose to strip off their mask and show you who they are and what they represent, even at the risk of shaking up our own interests for the time being. The time has come to draw the line—to separate the sheep from the goats. Your committee shall know, and the public shall know who and what these men represent, who are making false assertions in the ears of Congressmen and Cabinet officers and before your committee. Do you wish their photographs? I will give it to you. The band is composed of a few 'patriots' from Ohio, and a few from New York, a few from California, and, I am sorry to say, a sprinkling of saints from New England and Jerusalem, who constitute the first class heretofore named. Some of these are engaged in making pomace wine, viz., they use the pomace over and over again, adding sugar, water and corn spirits each time, so that as a matter of fact, the use of any grapes at all is a mere blind, behind which they carry on the manufacture of spurious so-called wines, more injurious to the health of the consumer than the commonest whisky. The cherry and prune juice men make up the rest of this worthy crowd. These claim to be handling California wines. The claim is in reality a blind, behind which, with a few gallons of California ports or clarets, they stretch highly colored and alcoholized cherry or prune juice out into any required quantity of cheap and poisonous compounds. Glucose, salicylic acid, common highwines, potato and beet root spirit and other deleterious matters, enter into the make-up of these abominations.

"The other class is made up of the scum and crooks of the cities, the sawdust swindlers and gamblers who differ from the first class only in the fact that they make no pretensions of dealing in grape wines, but brazenly declare their shame by offering their productions as imitation or artificial wines, made on a 'formula' from chemicals, spirits, sugar and water. The factories (brick vineyards) of these fine fellows are to be found only in large cities and their products are consumed mostly in slums. None but ignorant or dishonest merchants and druggists buy them. If their composition were to be printed upon the packages in which they are sold it would make the consumer turn pale to read it; they are downright poisons.

There is the descriptive list of the men who come to you in their stocking feet and ask you to shelve our bill and 'let them alone.' These are the men who tell you 'that the American wine industry is getting along well enough,' and that the 'dear public is not asking any protection on sanitary or any other grounds;' and there is the description of the 'wines' which these men are putting in competition with the 'products of American vineyards,' and which they ask the dear public to swallow in exchange for its bank bills. These 'wines' may be sold at a profit at from 20 to 50 cents a gallon, and at 100 per cent. profit if sold at one-half the market price of pure wines.

Does your committee see no evil or danger to the legitimate industry here? Is there no menace to the public welfare in this condition of facts? Shall it be said that the Government cannot stretch out its hands to uphold an honest and noble industry and shall not lay its strong hand upon the malefactors who threaten its welfare? Shall it be said that these mercenaries may turn their sluices of poison upon the markets for unwary customers to buy and drink, branded and marked as true wine, and without anything to distinguish them from the real wines, and that the Government has no power to stay it?

We deny each and all these propositions and insist that the Government has the power, and it is its plain duty to do just what we ask you in our bill. If it is crude or imperfect amend it, but we ask its prompt passage in some form, and thus give the public the protection against unwholesome beverages which it has a right to expect, and drive American viticulture from a disgraceful and ruinous competition with the foul products of this cabal of commercial brigands."

THE HAWAIIAN TREATY.

A correspondent of the New York *Evening Post* writes to that journal as follows:

The resolution of the Ways and Means Committee to abrogate the "Hawaiian Treaty of Reciprocity" should set thoughtful people to considering what the policy involves and what is the secret of the vitality of a measure, which for the past ten years, has withstood the fierce and unremitting assaults of the combined forces of the rich and powerful sugar refiners of the East and the sugar-growers of the South.

At the time of the passage of this treaty the "San Francisco Chamber of Commerce" gave utterance to its convictions in these strong words: "Opposite the very portals of this commerce, and in its track lie these islands, keeping, as it were, watch and ward over this entire coast and commerce. Plant an active enemy upon them, and even if he were the most insignificant of the maritime Powers, he would probably annihilate this commerce. A power with a fleet consisting only of the Florida and Alabama would, entrenched in these marine fortresses, harass all profit out of it. In the hands of England and France the effect would be to enable either of those Powers to shut us out of the great highway of the Pacific and lock us up, so far as commerce is concerned, within our own mountain ranges absolutely at his pleasure."

Our army and navy officers concur in that opinion, believing, to quote Admiral Porter, that, "with the Islands the Pacific Coast is impregnable; without them it is defenceless." The London *Times* says: "The maritime Power that holds Pearl River Harbor and moors her fleet there holds the key of the North Pacific."

Every Administration for the last half century has unmistakably declared that no other Power should ever be allowed to control those Islands. This treaty gives us for all practical needs that absolute control, through a proviso that the Hawaiian Government shall not dispose of any territory, grant any special privileges, or make any similar treaty with any other Power. Mr. John Bigelow recently said: "Though I never undervalued the importance of those Islands to the United States, since my recent visit to Panama I am disposed to regard the control of them of scarcely less importance than the control of Long

island, both to our commerce and our influence upon the seas. Under the treaty we secure all the control we need. To terminate will be to put the Islands up at auction, at which, whatever may be the result, we are sure to be the victims."

When Isthmian ship-transit is accomplished, Honolulu will be one of the most important pieces of territory in the world for us, whether for peace or war."

And why this question of annulling so important a convention? The Pacific Coast men reply in their appeal to Congress: "The trouble is that the sugar refiners of the East are willing to sacrifice to their greed not only the commercial, but the political advantages we enjoy under the treaty. It is not public spirit, but private cupidity that wages a persistent fight upon the treaty." Their chief organ, John E. Searles, jr., who for many years tried to break down the treaty by charges of fraud—charges that he was forced to acknowledge, over his own signature, were pure inventions—now comes before Congress with new statements equally false and misleading. No one knows better than John E. Searles, jr., that the treaty neither "created a monopoly of sugar" on the Pacific Coast "nor made it higher priced, and that the former monopoly of Claus Spreckels is utterly broken down by a rival refinery which now takes the bulk of Hawaiian sugar, thereby making it unprecedentedly cheap on the Pacific Slope. The statistics he offers are equally untrue.

His absurd statement that the treaty has not benefitted the Pacific Coast is disproved by the earnest petitions of its leading business men for its continuance, by the verdict of its Senators and Representatives in Congress, and by the voice of its united press, imploring to be saved from the baleful effects of abrogation. Over \$30,000,000 is now invested in the Pacific commerce created by the treaty, giving a trade of \$12,000,000 a year, and affording employment to a vast army of men in every line of activity, both on sea and land. Its annulment, to quote the *Alta-California*, "would take away at one blow one-fourth of the commerce of this coast, and turn over to England, lush, ripe, and profitable, the island trade, built up under the shelter of William L. Marcy's wise policy. How would New York meet a proposition to deprive her of 25 per cent. of her trade, especially if the painful excision were accompanied by the exposure of her coast shelterless to attack?"

The year before the treaty two-thirds of the island trade was diverted to Australia. A Canadian agent has just returned from the islands, sent there to sound their Government as to the formation of a treaty similar to our own. Handicapped as the Hawaiian planters now are by the high cost of labor, they would perforce turn in their extremity to the country which could best relieve their needs; and with cheap English Hindoo labor, cheap English capital, and strong English protection, the islands would inevitably form (unless—as Great Britain dreads—Germany should outstrip her in the race for the rich prize) the long-coveted link to gird the Pacific chain of her possessions, stretching from the terminus of her "Canadian Pacific Railway" to the uttermost shores of Australasia. And with what face could we complain that England, Germany, or any other Power should pick up what we had so lightly tossed aside?

The best, nearest and quickest job printing in San Francisco is done by E. C. Hughes.



ISSUED TWENTY-FOUR TIMES A MONTH.

E. C. HUGHES & Co., - - - Proprietors.

CHARLES R. BECKLAND, - - - Editor.

Office, 511 Sansome street. Postoffice Box, 2366

TERMS PAYABLE IN ADVANCE.

One copy one year, \$3.00

One copy six months, 1.50

Including city delivery, United States, or Canadian postage.

Entered at the Postoffice as second class matter.

AGENTS.

ANAHEIM, M. V. NEBEL NG

CLOVERDALE, Sonoma Co., J. A. CARRIL

DIXON, Solano Co., A. B. STOLY

DUNCAN'S MILLS, Sonoma Co., J. A. SLOAN

FRESNO, H. F. WARNER

GEYSERVILLE, Sonoma Co., D. LEPP

HEALDSBURG, Sonoma Co., A. BALTZEL

MAXWELL, Colusa Co., M. S. AITAN

SANTA ANA, R. F. CHITTON

SAN JOSE, Santa Clara Co., E. P. LEWIS

SANTA ROSA, J. A. WRIGHT

STOCKTON, W. H. ROBINSON

WINDSOR, Sonoma Co., LINDSAY & WELCH

WOODLAND, Yolo Co., E. BERG

HONOLULU, J. M. OAT, Jr. & Co.

FRIDAY, MAY 7, 1886

Recognition.

Our friends in the Fresno Viticultural and Horticultural Association recognize the value of a journal like the MERCHANT guarding and advancing their interests, and give effect to their good wishes in a very practical way, as will be seen by the following resolution:

Official.

FRESNO, CAL., April 5, 1886.

Proprietor S. F. MERCHANT:—Dear Sir: Below is a copy of the minutes of the last meeting of the Fresno Viticultural and Horticultural Society that is of interest to yourself.

Resolved:—That this Association recognize the SAN FRANCISCO MERCHANT as one of the best organs of the Viticultural and Horticultural interests in the State, an exponent of their views and able advocate of their interests, and, moreover, as a paper which has taken more than ordinary interest in the prosperity of Fresno county. We agree to give the publisher our liberal support, while that journal pursues the course for which it has hitherto been distinguished.

Moreover, we suggest that manufacturers and dealers in agricultural implements and other machinery who wish to call our attention to their goods, and us and other Viticulturists in maintaining the SAN FRANCISCO MERCHANT on a sound footing, by giving it a large share of their advertising patronage.

Be it further resolved that the Fresno Viticultural and Horticultural Society tender its thanks to the SAN FRANCISCO MERCHANT for past favors.

C. F. RIGGS, SECRETARY.

OUR HAWAIIAN TRADE.

The figures supplied by Mr. D. A. McKinley, the Hawaiian Consul-General, of the exports from San Francisco to the Hawaiian Islands, during the month of April, show a continued large volume of trade in this direction. The total amounts to nearly \$235,000 for the month, notwithstanding the fact that only one steamer, carrying freight, left this port for Honolulu last month, the Mararon, the other steamer on the line having a full cargo for the Colonies. Our exports for April stand thus:

	Value.
Dutiable.....	\$ 15,005.00
Free by Treaty.....	185,117.53
Free by Civil Code.....	1,173.51
Total.....	\$234,026.31

A young wine is called hard, when its contents of tartar and tannin are excessive. Through clarification and repeated racking these salts may be diminished and the disagreeable sensation in the taste of such wines may disappear.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

GRAPE INDUSTRY OF CALIFORNIA.

At this time, when the wine-makers of California are endeavoring to secure legislation for the protection of their industry, it is but fitting to give some idea of the growth and extent of the business, and the large interests involved in this State, and its possible future extension that may serve as a guide for the law-makers in the East. We hope that these points, briefly and concisely summarized, may be of material benefit to both wine-maker and grape-grower by showing the importance of the industry, and the necessity for its protection as against frauds and foreign products.

Viticulture in California is, comparatively speaking, a novelty. This was always considered a fruit and grain State, but it is only recently that the wine industry has loomed into prominence, and that its success has become assured. The beneficial effects of wine upon the public health are too well-known to need further comment. The planting of the vine in California can be dated back a century ago when the Franciscan Fathers planted what is now known as the Mission grape. Our pioneers of the wine-making branch of viticulture were Charles Kohler and Colonel Agoston Haraszthy. The former gentleman in Fresno, Los Angeles and Sonoma counties, besides being a member of the leading mercantile wine house of Kohler & Frohling, which is so well-known, both in San Francisco and New York. Colonel Haraszthy's son, Arpad Haraszthy, is now President of the State Viticultural Commission of California, besides being at the head of the firm of Arpad Haraszthy & Co., and having a large interest in several California vineyards.

For thirty years past there has been a steady growth and improvement in our wine production. From the original Mission vine we can now boast of having nearly two hundred distinct varieties of imported grapes planted in California. These are being planted universally throughout the State, and a few years will show the most desirable localities for the different varieties. It is impossible to gain such information without many and repeated failures. These failures mean a loss of time and money. In a new country, with different climatic influences from those of the European grape countries, we cannot be guided by the same results or experiences that they have attained. We must gain our own experience. This has naturally resulted in considerable loss to those who originally entered the business, and the benefit of their experience will be reaped by others who have more recently commenced. Here we might remark upon the evident desire and willingness of the pioneers to impart information willingly to the beginners. There is a manifest desire on the part of all to assist each other in acquiring information.

The profits of the wine-maker are not nearly as large as have generally been supposed. After paying for his land, planting and cultivating his vineyard, waiting several years for any crops, possibly being afflicted with phylloxera, or subject to some unusual climatic influence, which may partially destroy his expected crop, he will have but little, if any, margin of profit for many years to come. Then again the state of the market has to be considered. Hitherto the consumption of wines has been comparatively small, and a large crop of grapes has yielded but a small return, the market be-

ing glutted and the wine merchants being overstocked. The growers were compelled to sell, not having much capital and paying heavy rates of interest. Another difficulty with which they have been obliged to contend is the manufacture of spurious or adulterated wines, and it is against such swindling that the present legislation is desired. The manufacturers and compounders of these adulterations are not limited to any particular section of the country. With the aid of glucose, cherry juice, aniline dyes and salicylic acid, they place a mixture on the market that is called California wine, but which has, sometimes, never been in California and has sometimes no semblance of the juice of the grape. These compounds can be manufactured for next to nothing, of course to the detriment of the honest wine-maker, and a general damping of the whole California wine industry.

To show the extent of the business, we give the following figures: There are at least 4,000 vine-growers in this State, and the area planted in vines is not less than 160,000 acres. The value of this land, with all its improvements is not less than \$60,000,000. Employment is found for at least 40,000 people, who, with their families, represent a producing population of 150,000 persons. Besides these, there are so many more who are partially interested in the industry by indirect association and trade connections. The bottling, cooperage, machinery and boxes cause the circulation of a considerable annual outlay of money, and benefits trade, besides the actual vineyard work such as cultivating, grafting and picking the fruit. It is only right, it is only just, that the men and women who are engaged in grape culture, whether for the manufacture of wines or raisins, or for the cultivation of grapes, should be amply protected in their industries by the law. We can manufacture excellent raisins, but what is most needed is a high tariff on the foreign product, so as to assist and foster our own growers. We can make good, pure wines, but we need special protection against the frauds and compounders in our own country, who concoct cheap, base adulterations and in dross the legitimate and honest maker.

When the "stretchers" and wine compounders place their trash upon the market, under the guise of pure California wines, it not only affects the market price for the genuine article, but does irreparable damage to the business. Instead of increasing the demand, it does the very opposite. People who have once tasted the adulterations are hardly inclined to experiment with the genuine article. They fear a second deception. Our best wines are frequently sold under French labels, and it is only the poorer quality that frequently reaches the consumer as a California wine. Good wine can be sold in New York at from 75 cents to \$1 a gallon. At present our stocks are very low, owing to the shortness of last year's crop. There is every reason, however, to anticipate a crop of 20,000,000 gallons of wine from the coming vintage, the season, so far, having been all that could be desired. Of this, some 6,000,000 gallons will be distilled, leaving 14,000,000 gallons of wine for consumption and export. The ageing of wines has hitherto been an impossibility to the makers, but a few years will see a change in this respect, also in the quality of the wines that will be produced. Viticulture is a prominent and increasing branch of our agricultural industries, and those engaged in it have a right to demand legislation for their protection.

FIVE CENTS A GLASS.

The MERCHANT again takes pleasure in referring to the steps taken by a few of our wine makers, in starting wine shops for the purpose of retailing their wines at five cents a glass. Such action not only increases the consumption of the wine among a class of people who have hitherto been unfamiliar with it, but it also brings the profits directly home to the maker and will cause an increased demand.

As far as we know the pioneer of this infant branch of the industry, was Charles E. Shillaber, of the Cordelia Wine Company, who commenced business in his own town. Thence he branched out to Vallejo where he has also reformed the people to such an extent that his daily receipts average some \$30, and he has almost succeeded in closing the whisky saloons. His expenses are trivial; being rent, one man's wages, crackers and cheese. Sometimes the manager may be seen personally assisting behind the bar when there is a great rush of business, and he is not ashamed by any means to take in a nickle.

We previously mentioned the establishment of two five cent wine shops in San Francisco, and, though they are run under different names, we have a shrewd idea that the man from Cordelia has an interest in both of them. A rose by any other name will smell as sweet, so why should not a glass of wine taste as good, whether sold under the sign of Brown, Jones, Smith or Shillaber. But joking aside, it is a good move and one that is wanted extensively throughout the State. We have heard of a proposition to establish a five cent wine shop on Market Street, and another near the Fourth and Townsend Railway Depot. The more the merrier. It is also stated that Mr. Shillaber will shortly visit Napa, for the purpose of opening a similar store in the chief town of the chief wine county. He would certainly find a good field there, as it is a "two-bits a half bottle" town. The Napa folks should look to their laurels and not allow a neighboring county to instruct them in the way they should go. We predict that the Cordelia infant industry, if persistently followed everywhere, will grow into a giant. The good example set by Pioneer Shillaber, can be advantageously followed elsewhere.

CALIFORNIA AT NEW ORLEANS.

Mr. C. B. Turrill, the Commissioner for California at the New Orleans Exposition, whose return we notice elsewhere, has handed us a complete catalogue of the exhibits from this State. Their extent may be imagined from the fact that they fill a small volume of two hundred pages. After some reliable remarks concerning California, and an apology from Mr. Turrill that ill-health prevented the completion of his catalogue as originally intended, follow favorable comments from the Eastern press concerning the exhibits under Mr. Turrill's charge; these are followed by lists of the mineral and botanical exhibits, then the complete county displays separately classified. A glance through them shows that the wine, raisin and fruit departments, four products were very well represented. The compilation and publication of this catalogue, so carefully has it been done, must have alone been a work of considerable time and labor. Having had some experience in work of a similar character, we can fully appreciate the exertions and energy of Mr. Turrill at their full worth.

What the Austro-Hungarians say about the Cultivation and Sale of Table Grapes.

Some wine grapes are absolutely unfit for table use. Table grapes must have conditions which qualify them as such. Thus the plantation for table fruit should from the beginning be considered fully. Impulse has been given since 1878 to the cultivation of table grapes on a large scale, not only for local, but for export trade. Large areas are planted for the purpose of Muscatel passatutti, Muscat Lunel and croquant, Kischgutedel (according to Pulliat) Chasselas violet, according to Rendu Ch. rouge royal and Ch. rose de Montauban, of Chasselas de Fontainebleau, and on a smaller scale of Madeline angevine, royale and Precore de Malingre. The last named grapes can be shipped at the middle of August, at the end of August Chasselas grapes, and early in September Muscat grapes are ready for sale. The last two varieties keep on ripening till vintage time of wine grapes. Demand is ahead of supply. The way of doing the business is practically the following: In the summer the crop is estimated as to quantity and a contract, stipulating the obligations of both parties, is agreed to. For gathering the table grapes competent workmen are employed. Cutting the bunches with a sharp knife takes place at 8 o'clock when the dew on the grapes has had time to dry. The men gather from the rows only take the most matured bunches and place them with care in the basket, not injuring a single grape. The filled basket is taken to the packing house and the bunches laid on a long table, at five o'clock the gathering ceases in the vineyard, for the complete absence of moisture on the fruit is the first requirement and the danger of dew settling on the grapes is to be avoided. The grapes are packed in baskets with an oval cover, and as a rule the quantity of about 25 lbs. by freight is not exceeded. For the purpose of manufacturing these baskets the cultivation of the willow, *Salix virens*, forms a growing industry, if possible close to the vineyard.

The baskets are made of willow switches from which the bark has been removed. Before placing the bunches into the baskets, they are examined and every defective berry is removed with fine scissors. Tissue paper is laid in the basket and the bunches packed by experienced persons as closely as possible. When filled up to the middle, the basket receives another sheet of paper on which the fruit is placed until the basket is full, paper being put on the top of the fruit and the oval cover fastened by needle and thread. For transportation to the railroad, carts on springs, which hold about fifty baskets, are employed. The railroads ship the grapes as fast freight.

Pricked Wines.

Mr. D. Guiraud, in summing up the effects supposed to be remedial only to a slight degree of treating a wine that is pricked, finds the best results in Mr. Pasteur's heating process, applied in time. The advantages derived from heating a defective wine à la Pasteur are:

First—The acids are dulled; second, the ferments are killed, or rather their action is stopped; third, the aromatic principles are better developed.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

ADULTERATED WINES.

The MERCHANT has frequently referred to the growth and extent of the adulterated wine business, and the hardship it inflicts upon the honest producer or merchant. We recently mentioned that so-called California wines were being sold in New Orleans at from 25 to 36 cents a gallon without cooperage, and delivered at customers' houses. Samples of the stuff have been purchased there, and forwarded to the State Viticultural Commission for analysis. The stuff has been analyzed and shows that it contains both aniline dye and salicylic acid. The mere price at which the stuff is sold is proof positive of fraud, for genuine California wines are not sold here at such a price, delivered to the consumers. It is, therefore, impossible that they can be retailed in New Orleans, freight added, for less than the local market quotations. This is one of the damaging causes in the business that we want to legislate against, and to which the Green Bill, now before Congress, will specially apply. The uses of aniline dye are well known. The use of salicylic acid in wines is forbidden by the French Government. Occasionally in small doses, it is a medicinal remedy for the cure of rheumatism, as it affects the bones. Such is the nature of the stuff that is being poured down the throats of consumers, under the guise of California wine. The fraud and swindle is only too apparent and needs no further comment.

Vineyard Stakes.

The following note is from a Madrid (Spain) technical paper: Vineyard stakes, according to the system our grandfathers taught us, were made durable by soaking them in salt water. Iron-sulphate and tar have been in use and new processes have since been adopted. At the Universal exposition of 1878 in Paris a telegraph post was exhibited which, 20 years ago, had been treated by the old salt-water process, and done service all the time, and showed off intact and fresh, ready to remain so for many years to come. Competent Frenchmen have concurred in the advisableness of re-adopting the cheap and sensible system of preserving stakes in salt water. Even if tedious, it is a cheap way. A cask without head holding water receives in the latter as much common salt as well agitated, will saturate the water. The stakes should be put into the brine for a week or longer, and then the other end be also put in to be impregnated. After that the stakes should be dried. Some superfluous salt should be added to the quantity absorbed by the water.

How to Kill Snails.

To extirpate snails in the vineyard the French formula is 25 parts of copper sulphate, 100 parts of water, 1 part of flour, 5 parts of ochre, dissolving the copper sulphate in the boiling water and adding the flour and ochre. With a small brush a circle is made with the mixture around the foot of each vine. Do this in dry weather. Do not let the fowls eat the snails killed by the mixture.

The sailing of the Oceanic Company's steamer Australia for Honolulu has been postponed till Wednesday, May 19th. This will give an opportunity for the filling of orders and the answering of correspondence that will arrive by the Zealandia and Mariposa on 14th and 16th inst.

Vineyards Increasing.

In 1877 the extent of vine-plantations in Spain was in round numbers estimated at 1,300,000 hectares = 3,212,300 acres. At present the extent is calculated as 2,000,000 hectares = 4,912,000 acres, about the size of the preserved vineyards of France. This is an increase in 9 years of Spanish viticulture of 1,729,700 acres.

These figures are from the Bordeaux wine paper, the *Feuille Vinicole de la Gironde*, of the 11th of March, 1886. They are certainly not indifferent to American viticulturists, who are constantly told that Europe is retrograding in wine-production. Vine planting in Spain is carried on with a vigor, which, in one year, at an average from the above figures amounts to 200,000 acres more than the whole California vineyard area, and certainly shows no falling off, phylloxera destruction notwithstanding.

Mildew Remedy.

Monsieur Millardet's instruction about the application of the mixture of lime and sulphate of copper for treating mildew is amplified by the Bordeaux *Feuille Vinicole* by the following formula of the mixture:

To 100 litres (26.4 gallons) of water in a wooden vessel put 8 kilogrammes of crystals of pure copper sulphate, crushed beforehand, and placed in a bag or basket, immersing it in the upper part of the water. After a few hours the dissolution of the sulphate will be completed.

In another vessel 15 kilogrammes of fat lime in pieces are put and gradually 30 litres of water poured on the same. The purer the lime, the more dense will the milk of lime become.

The mixture of the lime-milk and the copper sulphate should be made very intimate by thorough stirring.

Correction.

The wines sent from Los Gatos to the late State Viticultural Convention have been erroneously included in the Santa Cruz county wines in the numerical appreciations of the Committee on Wines, as published in our issue of April 19th. The consequent alterations to be made are the following. To be struck off the wines of Santa Cruz county and to be added to those of Santa Clara county:

Sample presented.	Superior	Good types
Colombar.....	1	0
Golden Chasselas.....	1	0
Petit Pinot.....	1	0
Charbono.....	2	0
Zinfandel.....	1	0

Confiscation.

The Chamber of Commerce of Bordeaux has just petitioned the Minister of Commerce and Industry: First—To order the distillates from fermented dried raisins to be called and labeled *pinettes of dried raisins* and not as grape brandies, confiscating the liquids not truly labeled. 2nd—To confiscate all wines imported into France which are not absolutely and only the product of the grape, and not to allow the re-exportation of any wine containing admixtures not the product of the grape.

Experiments in Crimean vineyards infested by phylloxera with hemp raised around the infested spots have apparently been crowned with good results. The grape-lice, attracted by the strange odor of the hemp, attack the roots, which seems to operate as a real poison to the insect. Repetition of the above trials have proven their efficaciousness.

Prices For Grapes

EDITOR S. F. MERCHANT:

In your MERCHANT of 23rd April you publish Mr. Chauche's prices for grapes, and I must say you have not thereby made me comfortable. I have no doubt Mr. Chauche knows well what he is about, but this does not help me either. Now what is it Mr. Chauche offers for Franc Pinot? \$25 a ton. What for Charbono? \$15 a ton. My Franc Pinot won't yield much more than two tons to the acre, while my Charbono will yield eight tons. In other words my Franc Pinot is equivalent to \$50 an acre; my Charbono to \$120. What however have I gone and done? Under advice of the highest authorities I have gone and grafted my Charbonos into Franc Pinots. That is, in order to make \$50 I have thrown away \$120. I tell you Mr. Editor, there may be honor and glory in this, but I am not rich enough, nor young enough, to care for honor and glory compared to bread and butter.

Don't you think in the face of Mr. Chauche's price list that the high authorities ought to pause before saying much more in praise of Franc Pinot, especially when it is at the expense of Charbono? If Mr. Chauche's price list is to hold in future, I had better graft my Pinots back into Charbonos, or dig them up. If I don't I'll do worse.

In all seriousness, what is the matter with the Franc Pinot in California that it can only bring the price of \$25 a ton? I see the *Mémorial*, the *Chauche Noir* bring \$25, which nonpluses me more than ever. The price of grapes is ranked with his lieutenants. JOHN A. STEWART
Etha Hill, Santa Cruz.

[We are inclined to think that Dr. Stewart has become needlessly alarmed. As far as the prices for grapes are concerned, this is the first year that any wine maker has published or announced the rates at which he would contract for grapes, prior to the vintage, and this is a step in the right direction. As far as the Franc Pinots are concerned we do not believe that there are any in the Livermore Valley where Mr. Chauche's winery is located. If there were he would probably have to pay at least \$50 a ton for this variety. In different sections there will be different prices, and it does not follow because Mr. Chauche offers \$25 a ton for Franc Pinot at Livermore, where he cannot get any, that Dr. Stewart is obliged to sell them at that price in Santa Cruz. This variety will bring a much higher price than that quoted. We hope to obtain quotations for this season's grapes from other sections.—ED. MERCHANT.]

The Raisin Market.

Messrs. Wm. T. Coleman & Co. report stocks of last season's raisins as being very low, and the call light. Their quotations are:

London Layers, 20 lb., \$1.60 @ \$2.25 for extra choice, with the usual addition for fractions. Layers, 20 lb., \$1.25 @ \$2 for choice. Loose Muscatels, 20 lb., \$1.20 @ \$1.70 for extra choice. A fair grade of London Layers brings from \$1.85 @ \$2.00; Fair grade of Layers, \$1.50 @ \$1.75; Fair grade Loose Muscatels, \$1.40 @ \$1.50.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

VITICULTURAL LEGISLATION.

Remarks by Chas. A. Wetmore at the Fourth Annual State Viticultural Convention.

Mr. Wetmore.—In the matter of the legislation in which our commission has been interested, together with wine-growers elsewhere, we really cover more than the subject matter of this particular bill which is called our bill. We have the matter of spurious wines to contend against; we desire free use of brandies in fortified wines; we desire the privilege of breaking up brandies in bond into any shape or sized packages required by the trade, and filling where they are emptied, and we desire to have the principle recognized that the government should tax nothing, but consumption and not production, hence, as a principle, we claim that undisturbed bondage should be the rule, as recommended by the Commissioner of Internal Revenue. As long as a man does not desire to sell his goods, it is altogether a piece of tyranny on the part of the Government to tax them, but we may have to compromise on that, and if so, we desire an extension of the bonded period to, at least, eight years. Some of our Eastern friends, as well as our own here, think that the sales of our wine should be free from taxation. That is, that there should be no special tax. The freedom from that tax is something to be asked for, although it will be a difficult thing to get from the fact that they have not any tax that will take its place. We have also to take into consideration the various forms of legislation outside of Congress that are being urged by the prohibitionists which have a direct influence on our welfare and the welfare of the people. But our attention, at the present time, has been given above all things to the question of spurious wines, as it is a growing evil, and unless we can relieve ourselves from this villainous competition, we will have our wines in discredit, and ourselves under suspicion that even pure wines are impure.

The preparation of this bill, which I will read to you, has been a very difficult matter. It was consulted over here by members of our Commission and other wine-growers for more than a year, and when I went East recently, all that I was prepared with was the rough draft and substance of what we wanted included in the bill, realizing that it would be impossible to accomplish anything unless we had the good will of the Eastern wine-growers, who had vastly more political influence in Congress than we had. We realized also that it would be impossible to pass a bill of that nature unless we had the good will of the Legislature also. Our effort has been to obtain all these various forms of support, and especially from the merchants, importers and others, who are dealing in pure wines, whose interests in this matter are identical with ours. On visiting the East, and after consultation with wine-growers in New York and elsewhere, a meeting was held, an Eastern society organized, out of which has grown a national society with members in all parts of the country. The work that has been done by this society has been reported upon this afternoon in the letter that I read, and which I will read again for the benefit of those who might not have heard it. Societies are springing up all over the United States, which are willing to work with us, and are ready more in earnest than we are; not that they are more interested, but they seem to take hold of ideas of this kind with more vim and zest. In order to impress their influence on the country and Congress it has been arranged that a convention will be held in Washington in May of wine-growers of the United States, where there will be an exhibition of our products from all parts of the United States. The States will be out in force and it is expected that California will take a leading position. The National Society has requested our Commission to co-operate with them in the matter. I am in hopes that the letter which I read to-day will be published in some of the newspapers at an early date so that some of our wine-growers here will see what interest the Eastern men are taking in this matter. When I met the importers, I found that when the facts were put properly before them, giving them a just representation of our interests that there was no diversity of opinion, there was no cause of difference between our-

selves, and the importers accept the tariff, and of course that is an irreconcilable conflict. The Governor gave me a letter to the President, which, when I presented, was referred to the Committee on Internal Revenue and Agriculture, both of which committees showed an earnest spirit in looking into our affairs. It required a good deal of effort, however, to convince them that a bill could be drawn in such a way as to be enforced, for the difficulty is this, that there is a dividing line running through it, distinguishing between pure wines and suspected or imitation wines. To make provision so that the Department in exercising the law as to what should be taxed and what should not be taxed, and to provide against frauds, and to provide proper penalties has been a difficult task, and took a great many days work. It was first introduced informally before the Committee on Ways and Means, and before the Commissioner without introduction into Congress for the purpose of having it discussed and ascertaining what their views were on the subject, and finally a bill was drawn satisfactory to the Commission. Nearly all the provisions relating to the mere execution of it, and the working departments were drawn in the Commissioner's office, and as it stands to-day, it is really the bill of the administration, the substance being provided by the wine-growers. It is warmly indorsed by the Commissioner of Internal Revenue, who does not pretend that a large amount of revenue will be derived from it, but it will do a great deal of good. The Commissioner on Agriculture is equally earnest in the matter. It was introduced after I left. It could not be introduced until the Monday following. It is in charge of Col. Green of North Carolina, who has a large vineyard there, and he can be trusted to see that the bill is not tortured out of shape, by any unwise compromise of its provisions. We are satisfied that our own delegation will support it. Apparently the Sub Committee of Ways and Means are favoring it as far as we could learn. It is a novelty in the way of legislation, the first of its kind, and of course the members are cautious not to express themselves enthusiastically, but as far as I could learn the sentiment is all in our favor, and nothing but a stupid blunder or neglect will allow it to be defeated.

The bill has not been published except in the form which you see it here, and what I proposed to-night was to read it and show the character of the bill and the absolute importance of having its provisions properly executed. If there is any imported wine that does not come under the provisions of this bill, the Internal Revenue as well as the Customs service will be taxed to bring them under control. Everything that is known as drinkable, or containing the product of fruit juice is taxable, except the must of wines in Eastern States. They require the addition of sugar and sometimes glucose. In order to harmonize the interests of this Coast and the Eastern States, we have got Eastern wine growers to agree on limiting the use to the sugar of the cane, cutting off glucose altogether. The use of sugar in the East will soon, however, no doubt, be substituted by our own condensed must. They need sugar, and we can supply it to them, in the form of condensed grape juice. At present, however, it is required, and so to secure their co-operation, we have admitted the use of cane sugar, which is not a very serious thing, and only for the perfecting of the wines, and not for "stretching" them.

The Internal Revenue clause is so applied, that wherever you see the goods you can identify them and know whether they are taxable or not.

The theory of the section of compound liquors is the just of the whole bill. By it the consumers are given information as to what they are drinking. If they want to drink compound liquors, then they can do so, and know it. That section, while it is the strength of the bill, is also its weakness, for the Internal Revenue Commissioners say that when articles are required to be marked, and such stamps put upon them as will show their contents, it is practically prohibition—which is a thing we are trying to gain. Our argument is, that if such a law prevents the sale of goods by reason of the fact that the consumers know what they are buying, then our statements that they ought not to be sold is maintained. But

from the Internal Revenue standpoint, the Commissioner must necessarily report that he cannot get any revenue out of such a bill, for, by enforcing it, the Government is not going to make money out of it. That, of course, is one of our difficulties. The stamps have to be made for attaching to these curious goods, but they don't expect to get any revenue out of it. That is where the novelty of the bill comes in, for it is using the Internal Revenue Department for something other than the getting of Revenue. Under this act we are of course supposed to affect everything, excepting those goods that are excepted, but there are several kinds of adulterated, fictitious, falsified, imitation wines and compound wines. There may be a class that may not be allowed to pass current, while not condemnable, yet are still not absolutely bad. For instance, a compound of glucose and corn spirits and a little tartaric acid might be claimed by some persons to be wholesome drink, and if they wanted, they ought to have it. It will not do them any harm. But there it another class of compound adulterations that are known to be deleterious to the public health. So the law goes on to apply to them for the purpose of absolute suppression.

The theories of the penalties consists in this, the law for which this is substituted provides only a tax. The Collector of Internal Revenue is required to find the goods that are taxable. He accosts a man and assumes that his wine is taxable. A man writes up an affidavit and says it is pure wine. What is he to do about it, he does not know. If he does discover that some wine is going out that is taxable, he can seize the goods. But how many men care for this who are engaged in this nefarious practice? They would take the risk of an occasional fine or an occasional tax, for they make a lot of money out of the stuff that they do cheat the Government on. But making a violation of these laws punishable, and not only by fine but by imprisonment, is what we rely on to see its provisions respected. A man is not going to put salicylic acid in wine or aniline dyes, if by doing so he is subject to imprisonment.

A bill of this nature must necessarily be introduced into the house first, for it is a revenue bill on its face. It has originated in the house, and has gone to the Committee on Ways and Means, and our hopes are that it will so on be reported. But it must be watched continually from the beginning to the end. Those who mean to oppose the bill, will not oppose it by giving their true reasons. There is no man going before that committee and saying he is dosing his wine with salicylic acid or aniline dye. There is no man going to say so in so many words. If he attacks it, it will be by some flank movement. He will perhaps content himself by talking up the Internal Revenue laws, and insisting that it is not the duty of the Government to touch the matter, but it is the duty of the State. There are a dozen ways of opposing it. So far, however, I have been not a little surprised at the very little opposition that I have met with. This is perhaps due in some measure to our method of attack in the eastern organizations. At the time of leaving the east, I heard of but one opposition to the plan, and that came from a house in New York, dealing in California wines. The moral of that people can judge for themselves.

All the wine growers in the east are in favor of the bill. It is satisfactory on all grounds. The only trouble will be in fighting off the opposition that will be disguised, and it will require constant attention. There are a great many phrases in the bill, in which the change of one word would change the measure, and the majority of the members of Congress do not understand it sufficiently well, without being talked to on the subject and the matter explained to them. Consequently, the only safety we have is in arousing the wine growers through the United States, to write to their representatives in Congress, that the bill is all right and would and should meet with their support. We have therefore taken the precaution of having copies of the bill distributed everywhere. Before I left or the bill was introduced, 500 copies of it were sent to members of Congress and New York people and elsewhere, so that they could become familiar with its provisions in advance. We have taken that precaution to prevent being caught afterwards.

There is nothing now to do with this bill except to have it pass the committee. The effect of it, as stated by Mr. Clayton in his letter, is undoubtedly something that will be of immense benefit to all. In the first place, it increases our market to the extent that we displace all these compound liquors. In the next place, it increases our market as it increases confidence in our goods that are supplied. At the present time, there is a hue and cry about adulteration all over the east. So much so, that a majority of the people are afraid to buy anything, particularly drinkables. And you can not convince a man by simply putting on a label, that it is pure. Everybody does that, more especially those who make impure wines. I have a circular in my pocket of a New Jersey wine maker, who makes a pure Oporto wine from the Oporto grape, imported into New Jersey and grown there, while it is well known that there is not an imported vine that will grow in New Jersey. He is only one of a number of traders who are continually practicing in this way. It costs nothing to put a mark on the bottle, and is only regulated by the honesty of the man who puts it there.

In preparing the first draft of the bill, we were afraid that the department would hesitate at the stringency of our provisions. At first, it did shrink on seeing the amount of work that there would be to enforce such a law. I explained the matter however, thus: as there were vital interests between those making pure wines, and those making compounds, that it would soon become understood that those making pure wines, and who had an interest in protection, would give all possible information to Government Officers whenever there was a fraud. Consequently their work would be very much relieved. That would be the result, but at the present time if we found wines dosed with aniline dyes or salicylic acid, what good would it do us? There is no law to prevent it; nothing at all. But if there is a law to prevent it, the danger of punishment will stop the work to a great extent, and this is the only safety that we have in the future. If we do not pass a law this time, or if I thought we could not, I should want to tear my vineyard up, for to remain in the business and be honest would be absolutely impossible, unless I was aiming at some high grade wine I should offer to the public in bottles, unless I had wealth and could advertise my own goods, and make them known through my own agency, and rely on my own protection. But if we are to send millions and millions of dollars of wine in casks all over the country, to be broken up and bottled here and there without any attention to the producer, unless there is some mark to follow them all the time to show that they are pure, they will meet in competition, this stuff that they make for about 17 cents per gallon in New York. And you will find that nearly all or a very large majority of the merchants, if we are not protected, will deal in both classes of goods. That is one of the difficulties in getting the merchant houses in the East to assist us. I brought that before the committee to explain this matter. Competition is the great incentive to wrong. One man sells goods cheaper than another, and the second man is forced to come down in his price or go out of the business. All these fictitious goods are made to under sell superior goods. They are made so as to be bought at a low price and put on the market in competition with higher priced goods. They are practically worthless. On our coast we could stand the strictest construction of the word "purity." That is what we tell them in New York. We said to them: "We will allow you to draw that bill in any way you please, provided you do not interfere with the ordinary practices recognized by competent authorities in the business. You can draw your line of purity as fine as you please, and it will not hurt us." The only question was, how we could combine with them, and whether they would be satisfied to have us give them only an exception as to cane sugar in fermenting; but so far as we have had anything to do with them, they have agreed. A gentleman of the Pleasant Valley Wine Co. was with me before the committee and indorsed our views. All it requires now, however, is an organized effort to get this bill through, and such contribution of funds or materials as are necessary to present our case before the country.

CALIFORNIA WINES AND BRANDIES,

San Francisco,
121 Market Street.

Astoria, Oregon,
Flavel's Wharf.

Chicago, Ill.
91 Michigan Avenue.



New York,
71 Hudson Street.

London,
4 Bishopsgate St.,
within E. C.

Liverpool,
54 Drury Buildings.

WM. T. COLEMAN & CO.
71 HUDSON STREET, NEW YORK CITY.

ALSO AGENTS FOR
ALCOHOL, WINE AND SPIRITS.

A Friar's Clever Way of Reforming Viticulture.

The prelate of one of the rich Austrian Monasteries, was solicitous to propagate good varieties in the vineyards tributary to the pious establishment. The fame of the monastery for its excellent Riesling was wide-spread. But the quantity of that fine wine growing in the vineyards, cultivated by the friars themselves was a small one, and did not suffice to store up in the cellars, anything like what the thirsty souls could wish. Some hundreds of thousands of cuttings were ordered from the Rhine, and offered at a very low price to the vintagers of the neighborhood. Of course, just as among our own old fogies, of whom in the midst of progressive viticulturists California has too many, the offer was not accepted by any one. The vintagers were satisfied with what their fathers had planted before them. The prelate went a step farther in the pursuit of his well meant reform. He proclaimed that the monastery would give to everyone the Riesling cuttings for nothing. The diffident peasants did not bite even at this generous offer. People do not believe that others can do a favor to them without some secret cause of benefit to the giver.

Seeing the non-success of this liberal policy, the prelate then had the idea of carting large quantities of the cuttings to a great distance, heaping the bundles and leaving them abandoned there. The calculation was a bit. Every morning the father cellar master could report to the Abbot, that again during the night the heap of cuttings had been plundered. When ever the old gentleman, in subsequent years, took his digestion-favoring constitutional along the prosperous Riesling plantations of the peasants, he would, with a broad grin, murmur to him self, "Oh you rascals, I know who were the customers of my fine cuttings."

Might this system be worthy of imitation in some of our retrograde regions, where Mission cultivation is yet adhered to with persistence?

French Resistant Vines.

Monsieur E. Terrel des Chenes says, with regard to French vines resisting both phylloxera and mildew, in substance as follows:

The *Etraire de l'Abbay* variety proved a success in the little vineyard of Ponsaieux, in which Gamay and Syrah were killed by phylloxera and had been rooted out years ago. The above variety which, without treatment against phylloxera of the soil, was planted, yields a regular crop. The soil is well manured.

In Mr. de Vacheron's vineyard at St. Verand de l'Ouingt, situated in a cemetery of vineyards, and which had been phylloxerated for eight years the *Etraire* re-planted vines yield a good crop now.

In Mr. Terrel's Chaintre vines of the *Etraire* variety he gets a good crop each year, although phylloxera killed other varieties around the *Etraire*. A friend of Mr. Terrel from Nîmes says that if the results reached with the *Etraire* variety in that neighborhood will continue for ten years longer, he considers that region safe against phylloxera through that variety. With all the favorable reports Mr. Terrel advises to continue trials, and, by the results to be obtained by many viticulturists from the *Etraire*, to become more certain, as this is as yet possible from the experiences of the few years of trials.

Mr. F. Pohodoff started for Washington on April 30th, to assist Mr. C. A. Wetmore at the National Wine Growers Convention to be held there this month.

AGENCY OF

WM. T. COLEMAN & CO.

91 MICHIGAN AVENUE, CHICAGO.

California Products a Specialty.



California

Canned

Fruits,

California

Raisins,

California

Wines,

California

Dried

Fruits,

California

Oranges

COLUMBIA AND SACRAMENTO RIVER SALMON,

—AND ALL—

Pacific Coast Products Suited to Eastern Trade.

CONSIGNMENTS SOLICITED, AND ALL CORRESPONDENCE

PROMPTLY ATTENDED TO.

T. B. McGOVERN, Manager.

RUPTURE RADICALLY CURED by Dr. Pierce's Great Discovery. Thousands of patients cured at their own homes. No Experiment! It does the Work! DR. PIERCE & SON, 701 SAC ST., San Francisco, Cal.

JOHN SMITH, WOOD AND COAL DEALER.

223 POST ST., San Francisco.

TUNED \$50 FOR SELLING COAL AT LESS PRICE than that established by the Retail Importers. Don't be imposed on, but buy your Coal from me, and help break down a combination to rob the poor man.

A. O. COOK & SON.

MANUFACTURERS OF

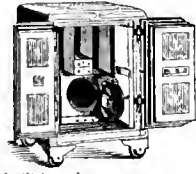
OAK TANNED
TRADE MARK.

Leather Belting

LACED LEATHER IN SIDES AND CUT STRINGS.

415 Market St., San Francisco.

FIRE-PROOF SAFES ALL SIZES.



CHAS. WALTZ, inventor and Manufacturer of the Waltz Safe. Fire and Burglar Proof Safes, Time Locks, Bank and Vault Work, a Specialty. Expert work done in opening and repairing Safes and Locks. Beards' Patent Screw Door Burglar Proof Safes and Chests. Safes built to order.

CHAS. WALTZ,
11 Drumm Street, San Francisco, Cal.
Write for prices and information.

BUHACH AGAINST INSECTS!

Now is the time to destroy Insects on Trees, Vines, Rose Bushes, or any other plants with **Buhach**, the great

California Insect Exterminator!
DON'T BUY IT IN BULK, but in original cans. Warranted absolutely pure. Directions for use with each can. Sold by Druggists and Grocers everywhere.

Buhach Producing & Mfg Co.,
154 LEVEX ST., Stockton, Cal., and 49 CEDAR ST., New York, Sole Manufacturers.

P. S.—In all cases where the powder fails to do the work, please send us a sample of it by mail, and the name of the dealer, so that we may protect the consumer, as many dealers have been selling spurious insect powders for Buhach. The word "Buhach" is our registered Trade Mark, and no person can sell any other Insect Powder but ours under that name.

WOODLAND WINERY FOR SALE.

Located at Woodland, Yolo County, Cal.

Complete in all its Appointments. Capacity 120,000 gallons. Steam Crusher, Hand Crusher, two Stills, Syrup Pan, Pumps, and everything Complete. Cooperage in best condition.

TWO-STORY BRICK BUILDING,
125x60 Feet. Fifty rods from Depot.

Three thousand tons Wine Grapes raised here last season. This is a rare chance for engaging in this business. For full particulars inquire at office of

LANDBERGER & N,
123 California Street, S. F.

—OR TO—

CLARK & CULVER, Proprietors,
Woodland, Cal.

H. H. MOORE,

BOOKS ON VITICULTURE, ETC.

(French and English.)

409 MONTGOMERY STREET,
Near California, San Francisco.



A. 1876 S. I. XII.
I. S. 1888 G.

The Indastrian never Sioh.

GUY E. GROSSE, Broker in Real Estate
Ranches, Residence, Business and Manufacturing Property Bought and Sold on Commission.
And Publisher of "Sonoma County Land Register and Santa Rosa Business Directory."

Office, No. 312 B St., SANTA ROSA, CAL.

BOSTON BELTING CO.

GOOD ROSE A SPECIALTY.

J. W. CIRVIN & CO.,
24 CALIFORNIA STREET, F.

FILTERS FOR WINES.

GEO. J. HUTCHINGS,
118 N. HOWARD ST., BALTIMORE, MD.

THE WELLINGTON,

21 DUPONT ST.,

Near Market, San Francisco.

Handsomely Furnished Rooms

FOR GENTLEMEN ONLY.

NOW READY.

THE
REPORT
OF THE

FOURTH ANNUAL

STATE

VITICULTURAL CONVENTION.

PRICE, ONE DOLLAR.

OFFICE OF THE SAN FRANCISCO MERCHANT.

E. C. HUGHES & CO.,

Publishers,

511 Sansome Street,

CALIFORNIA VINEYARDS.

KRUG CHATELAIN.
Krug Station, St. Helena, Napa Co., Cal.
Producer of fine Wines and Brandies.

J. C. WEINBERGER, Manufacturer of Wines, near St. Helena.

H. W. CRABB, Wine Cellar and Distillery, Oakville, Napa County.

MOUNTAIN WINE

From the Celebrated

YERBA BUENA VINEYARD.

Situated 7 miles East of San Jose. One thousand feet above the Valley. In cases of bulk fine old Burgundy and Mountain Riesling

PAUL O. BURNS WINE CO, Proprietors.
Branch Cellars in San Jose, Cal.
WM. T. COLEMAN & CO., SAN FRANCISCO,
Sole Agents for Chicago and New York

T. & M. E. Tobin & Co,

PRODUCERS OF PURE

CALIFORNIA WINES & BRANDIES,

Cor. Stockton & O'Farrell Sts.,

San Francisco, Cal.

P. P. MAST & CO.

31 MARKET ST., S. F.

SELL THE WELL AND FAVORABLY KNOWN

BUCKEYE PUMPS,

The simplest and best worked Pump

FOR WELLS OF ANY DEPTH

Ever Offered.

SEND FOR CIRCULAR AND PRICE LIST.

Graham Paper Co.

OF ST. LOUIS.

W. G. Richardson,

PACIFIC COAST MANAGER,

No. 529 Commercial St.,

SAN FRANCISCO, - - - CALIFORNIA.

TELEPHONE No. 1064.

THE CUPERTINO VITICULTURAL SOCIETY

Meets on the evening of the third Thursday of each month at Mr. Montgomery's.

J. C. MERITHREW, President
J. D. WILLIAMS, Vice President
R. C. STILLER, Secretary

Please address all communications to R. C. STILLER, Gilroyville, Santa Clara Co., Cal.

ESTABLISHED IN 1860,

ALL WINE MAKERS

Should drink the

PURE BELMONT

— HAND-MADE —

SOUR MASH WHISKY.

Supplied in lots to suit by

JAMES CIBB, 617 Merchant St.

THE RISDON

IRON AND LOCOMOTIVE WORKS.

For Beale & Howard Sts., S. F.

W. H. TAYLOR, Pres't. JOSEPH MOORE, Supt.

BUILDERS OF STEAM MACHINERY

IN ALL ITS BRANCHES.

Steamboat, Steamship, Land Engines and BOILERS, High Pressure or Compound.

STEAM VESSELS of all kinds built complete, with Hulls of Wood, Iron or Composite.

STEAM BOILERS. Particular attention given to the quality of the material and workmanship, and none but first-class work produced.

SUGAR MILLS AND SUGAR-MAKING MACHINERY made after the most approved plans. Also, all Boiler Iron Work connected therewith.

PUMPS. Direct Acting Pumps, for irrigation or City Water Works purposes, built with the celebrated Heavy Valve Motion, superior to any other Pump.

A. ZELLERBACH,

IMPORTER AND DEALER IN

BOOK, NEWS, FLAT, WRITING PAPER.

MANILA, WRAPPING AND STRAW PAPER,

Colored, Poster and Tissue Paper, Also Envelopes and Twines.

509 CLAY STREET.

A few doors above Sansome, San Francisco, Cal.

E. L. G. STEELE & CO.,

SUCCESSORS TO

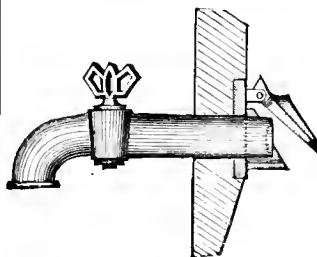
C. ADOLPHE LOW & CO.,
COMMISSION MERCHANTS.

Agents American Sugar Refinery and Washington Salmon Cannery.

THOMAS S. CLAISTER'S

PATENT VALVE ATTACHMENT

FOR WINE AND BEER CASKS.

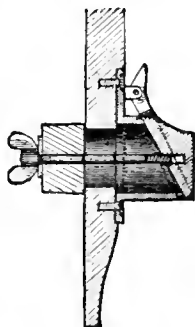


Claim.—1. The combination, with annular valve-seat secured within a cask behind the bung-hole, of a gravity-valve provided with a threaded socket, and a spindle adapted to engage the socket and securely hold the valve against its seat, substantially as herein.

2. The swinging or gravity valve on the inner surface of the door of a cask, and controlling its bung-hole, in combination with the means for positively holding said valve closed. When the wine is ready, it can be drawn off by simply inserting the faucet.

For further particulars apply to

THOMAS S. CLAISTER,
Sonoma, Sonoma County, Cal.



OUR NATIVE WINE SHIPMENTS BY SEA.

PER P. M. S. S. CO'S. STR. CITY OF NEW YORK, APRIL 24, 1886.

TO NEW YORK.

MARKS	SHIPPERS	PACKAGES AND CONTENTS	GALLONS	VALUE
P A, New York	Walter, Schilling & Co	25 barrels Wine	1149	\$459
L P, New York	"	50 barrels Wine	2277	948
B D & Co, New York	"	200 barrels Wine	9315	4100
D J L, New York	"	75 barrels Wine	3514	1250
C, New York	"	50 barrels Wine	2326	850
J F, Jr., New York	"	21 barrels Wine	1013	650
Total amount of Wine			19,624	\$8,228

TO CENTRAL AMERICA.

S & S, Champerico	Schwartz Bros	12 packages Whiskey	...	\$322
S & Co, San Jose de Guatemala	"	16 packages Whiskey	...	403
E E O, San Jose de Guatemala	Bingham & Pinto	20 kegs Wine	200	195
"	"	1 case Wine	5	5
H K & Co, San Jose de Guatemala	J Smith	2 half barrels Wine	67	40
B H, Champerico	Wilmerding & Co	12 cases Whiskey	28	111
H H, San Jose de Guatemala	Lahenthal & Co	1 barrel Whiskey	42	11
Total amount of Wine			272	\$240
Total amount of Whiskey, 25 packages and			70	850

MISCELLANEOUS SHIPMENTS.

DESTINATION	VESSEL	RIG	VALUE	GALLONS
Victoria	Idaho	Steamer	37	333
Japan	Gauche	Steamer	578	410
Honolulu	Zealandia	Steamer	3,382	3,506
Total shipments by Panama steamers			19,896 gallons	\$8,468
Total shipments by other sea routes			3,997 "	3,949
Grand totals			23,893	\$12,417

TO NEW YORK—PER STEAMER GRANADA, MAY 1.

K, in diamond, New York	I Gundlach & Co	50 barrels Wine	2347	\$1056
H, in diamond, New York	"	2 barrels Brandy	101	227
"	"	6 barrels Wine	2347	1525
"	"	13 puncheons Wine	...	...
G, New York	"	54 barrels Wine	2339	1461
A V Co, New York	Walter, Schilling & Co	160 barrel Wine	7855	3927
"	"	51 casks Wine	4621	1848
M C, New York	Arpal Harashty & Co	5 casks Wine	299	180
"	"	1 half barrel Wine	25	25
B D & Co, New York	B Dreyfus & Co	340 barrels Wine	15981	7400
B C, Philadelphia	"	13 barrels Wine	615	375
Total amount of Wine			36,429	\$17,799
Total amount of Brandy			101	227

TO CENTRAL AMERICA.

M B, Champerico	B Dreyfus & Co	10 kegs Wine	100	\$75
J L, Guatemala	"	10 cases Wine	50	45
D, Guatemala	"	5 half barrel Wine	25	20
B H, Champerico	"	100 cases Wine	500	454
"	"	5 cases Brandy	...	50
Y H, Champerico	"	6 kegs Wine	60	70
"	"	6 cases Wine	30	20
P G, Champerico	"	14 kegs Wine	140	135
"	"	1 keg Brandy	10	30
A M, Champerico	S Lachman & Co	1 barrel Wine	48	38
N D Co, Acajutla	Uruela & Urioste	2 cases Whiskey	...	16
T de B, Acajutla	F Daneri & Co	16 kegs Wine	80	80
Total amount of Wine			1,333	\$937
Total amount of Brandy, 5 cases and			10	80
Total amount of Whiskey, 2 cases			...	16

TO MEXICO.

E L, Acapulco	Redington & Co	1 barrel Wine	44	\$83
H P, Manzanillo	Thannhauser & Co	1 package Wine	13	39
J, C C, Acapulco	Littlefield, Allison & Co	25 barrels Wine	49	39
Total amount of Wine			109	\$161
Grand total			37,571 gallons of Wine	\$18,897

WILLIAM CLUFF & CO.,

WHOLESALE

Grocers and Provision Dealers,

16, 18, 20 & 22 FRONT, Cor. PINE Street, S. F.

All Orders by Mail Promptly Attended to.

THE COOS BAY STAVE & LUMBER CO.

— MANUFACTURERS OF ALL KINDS OF —

COOPERAGE GOODS!

Especially invite the attention of Wine Men to their unsurpassed facilities for supplying packages from a

5-GALLON KEG TO A 160-GALLON PIPE OR PUNcheon.

Our machinery enables us to execute all orders with promptness and economy. Price List on application.

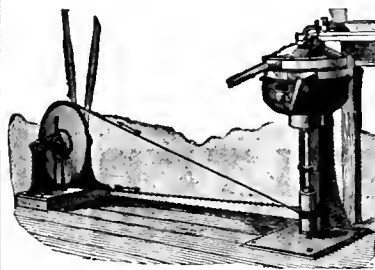
OFFICE: 323 FRONT STREET,

WORKS..... BRANNAN ST., NEAR EIGHTH.

Pure Sweet Cream.

More Cream.

Better Butter.



DE LAVAL CREAM SEPARATOR extracts all Cream from Fresh Milk. Greatest Dairy Improvement of the age. Dairymen lose money every day setting milk. Our customers write: "Decided increase in yield of butter;" "Butter brings over the highest market quotations;" "Separator pays for itself over and over again;" "Great saving of labor;" "Needed in every dairy of twenty cows;" "If we had to go back to setting milk we would give up dairying."

1000 in Successful Operation in the United States. Over 50 on the Pacific Coast.

And all giving unbounded satisfaction.

STODDARD BARREL CHURN with improved cover fastening. The only practical Churn for the dairy. Awarded First Premium California State Fair, 1885; also First Premium Mechanics' Fair, San Francisco, 1884 and 1885, overall opposition. The Stoddard Churn is as great an improvement over the cumbersome, leaky, and often sour box churns as the Cream Separator is over setting in pans, and this fact is fast becoming realized, as is proven by the growing demand for them, and they are being adopted by our best dairies with the most gratifying results. Beware of imitations of the "Stoddard."

Price List—No. 1—10-gal. Churn, 1 to 4. \$8 No. 4—25-gal. Churn, 4 to 12 \$12 No. 2—15-gal. Churn, 2 to 7. 9 No. 5—35-gal. Churn, 5 to 16 14 No. 3—20-gal. Churn, 3 to 9. 10 No. 6—60-gal. Churn, 6 to 28 24

Extra heavy frames, pulleys, etc., extra. Send for price list of larger sizes. *I which we carry up to 120 gallons. Come and visit several Separators in operation near this city, or send for information where they are used in your vicinity. Don't neglect to send for descriptive circulars at once of this and other Latest Improved Dairy Appliances for which we are headquarters.



C. C. WICKSON & CO.,

38 CALIFORNIA STREET AND 106 DAVIS STREET, SAN FRANCISCO.

WM. T. COLEMAN & CO.,

Commission Merchants.

SAN FRANCISCO,

NEW YORK,

CHICAGO,

Agency WM. T. COLEMAN & Co.,

Agency WM. T. COLEMAN & Co.

ASTORIA, Or.,

LONDON.

With Agents and Brokers in every Commercial City of Prominence in the Union.

WE MAKE A SPECIALTY OF HANDLING THE

RAISIN CROP OF CALIFORNIA!!

And amongst others we are Agents for

Riverside Fruit Company of Riverside, Miss Mary F. Austin of Fresno, McPherson Bros. of Orange, T. C. White of Fresno.

With many other of the Most Prominent Curers of this State.

Our Facilities for Promptly Picking and widely Distributing Their Produce Can be Ascertained from the Above well-known Curers.

We are also Large Handlers of

ORANGES, DRIED FRUITS, HONEY AND BEANS

IN THE EASTERN STATES.

Advances Made when Required, and Full Information of Markets Promptly Given. Address

Wm. T. COLEMAN & Co.

MARKET & MAIN STS., S. F.

New Time Table.

Last Sunday, May 2nd, a new Time Table went into effect on the Northern Division of the Southern Pacific Co.'s Lines. Trains will leave as follows: For San Mateo, Redwood and Menlo park, 8:30 A. M., 10:40 A. M., 4:25 P. M. and 6:30 P. M. Daily; 3:30 P. M. and 5:15 P. M. Daily, Sundays excepted; 11:45 P. M. Saturdays only (Theatre Train) and 11:30 A. M. Sundays only.

For Santa Clara, San Jose and principal way stations 8:30 A. M., 10:40 A. M. and 4:25 P. M. Daily, and 3:30 P. M. Daily except Sundays.

For Gilroy, Pajaro, Castroville, Salinas and Monterey, 10:40 A. M. Daily, and 3:30 P. M. Daily except Sundays.

For Hollister, Tres Pinos, Watsonville, Aptos, Sequel (Capitola) and Santa Cruz, 10:40 A. M. Daily, and 3:30 P. M. Daily except Sundays.

For Soledad and way stations, 10:40 A. M. Daily.

The Monterey and Santa Cruz Sunday Excursion Trains will also be run commencing same date. The train will leave from Townsend St. Depot at 7:50 A. M., Valencia St. Station at 8:00 A. M. Returning arrives at San Francisco at 8:55 P. M. same day, giving five hours stay at either Monterey or Santa Cruz, for which the round trip fare is \$3 00.

Applying Sulphur.

A short remark to the point is from the *Bordeaux Feuille Vinicole*:

Often in passing through a vineyard have we observed whole lumps of sulphur thrown, without regard, on one spot of a vine. Under the action of the sun this excess of sulphur on the vine becomes a real evil instead of doing good. Apply your sulphur in fine powder equally on your vines.

Secondary fermentation takes place only in young wines. It is caused by imperfect vinification, or by change of temperature, which excites the ferments yet remaining in the wine. To the smell this action appears as an acid heat. On the palate it shows itself in the shape of pricking which is the influence of the carbonic acid gas that is disengaged. The sensation caused by the remaining sweetness mixed with that from the said gas is a slightly burning one.

A crude and green tasting wine is the product of grapes vintaged before reaching perfect maturity. Numerous diseases of such wines are natural results. A certain freshness produced by an admixture of grapes not very ripe, is a good quality of some wines. But acridness should not be coupled with such freshness.

A wine of a taste which leaves no traces on the palate after deglutition is called of short finish. A refreshing, pleasing sensation in the after taste is of merit in a wine.

A wine of excessive asperity, roughness or acrimonious taste, results generally from bad grapes and such as had their stalks in an imperfect state of maturity.

THE REPORT

OF THE THIRD ANNUAL

State Viticultural Convention

FOR SALE AT THE OFFICE OF

THE SAN FRANCISCO MERCHANT.

323 FRONT ST. P. O. Box 2366.

Price 50 cents Each
Bound in Cloth, \$1 50.

WE HAVE SOLD

A PORTION OF OUR STORE FIXTURES TO BE delivered when the buyer is ready to use them. Our store not being rented, we have secured it from WEEK TO WEEK.

We refer to any of our numerous patrons for proof of the

EXTRAORDINARY BARGAINS

...OFFERED IN ...

Diamonds, Watches, Jewelry
and Silverware.

RANDOLPH & CO.,

No. 101 Montgomery St.

W. E. CHAMBERLAIN, JR.

T. A. ROBINSON.

**Life Scholarships, \$75.**

DAY AND EVENING SESSIONS.

Ladies Admitted into all Departments.

No Vacations. Send for Circular.

LANDSBERGER & SON,

Successors to

LANDSBERGER & CURTISS,

123 California St., - - - San Francisco.

AGENTS FOR THE PURCHASE AND SALE OF

Viticultural Products and Vintners Supplies.

AGENTS FOR

KIDD'S INTERNATIONAL DISTILLERY, DES MOINES, IOWA.

Correspondence Solicited.

THE OLDEST WINE HOUSE IN THE UNITED STATES.**John Osborn Son & Co.**

NEW YORK.

(FOUNDED 1836.)

MONTREAL

Shipping and Commission Merchants.

(P. O. BOX NO. 80, N. Y.)

45 BEAVER STREET, NEW YORK.

Correspondence solicited with Winemakers throughout the State, and also for all California Fruits and General Produce.

We handle all goods as we receive them, and it is the object of all shippers to ship only such wines, etc., that will establish a reputation. As sole agents for PIPER HEIDSIECK and PIPER SEC CHAMPAONE, our importations for the last three years were 125,000 Baskets, or more than three times the importations of all other brands imported to the Pacific Coast.

Valuable Patent**FOR SALE.****The Claus Improved****GRAPE-VINE TRELLIS.**

LATELY PATENTED, ATTRACTS GREAT ATTENTION among vintners everywhere as far surpassing any other form by efficiency and perfection. Generally acknowledged to be a meritorious invention and an unrivaled progress in viticulture, it will pay its application tenfold. It is truly a first-class acquisition.

RIGHTS OF THIS PATENT

FOR SALE BY

AMERICAN PATENT AGENCY,

188 & 190 WEST 5th ST.

Cincinnati, Ohio.

Full descriptive illustrations, costs, etc., given by me above and the inventor

C. H. TH. CLAUS,

Cor. Iowa & Keokuk Sts., St. Louis, Mo.

DR. A. FONTAINE'S PREPARATION

WILL DEVELOP A BEAUTIFUL FORM in sixty days, the effect of which is permanent and pleasurable discernible in ten days. Where a perfect bust is already possessed, it will preserve the same firm, and perfect in shape. This is a carefully prepared prescription of an eminent French physician and scientist, and is free from lead and all injurious ingredients, and will not injure the most delicate skin. A fair trial will not only convince you of its efficacy, but will elicit your sincere thanks and enthusiastic praise. Mailed secure from observation on receipt of price, \$1.00. Sealed circular, 4 cts. Sold by Druggists. Address,

MADAME FONTAINE, 19 East 14th St., N. Y.**CHOICE****OLD WHISKIES****PURE AND UNADULTERATED.**

We Offer for sale on Favorable Terms to the Trade,

CATHERWOOD'S**Celebrated Fine Old Whiskies.**

OF THE FOLLOWING BRANDS, NAMELY

"CRANSTON CABINET"**"A.A.A." "CENTURY"****"OLD STOCK"****"HENRY EULL"****"DOUBLE B"****"MONOCRAM"**

VERY OLD AND CHOICE, IN CASES OF ONE DOZEN QUART BOTTLES EACH,

"BRUNSWICK CLUB" Pure Old Rye, And **"UPPER TEN."**

For Excellence, Purity and Evenness of Quality the above are unsurpassed by any Whiskies imported. The only objection ever made to them by the manipulating dealer being that they cannot be improved upon.

Dickson, De Wolf & Co.**SOLE AGENTS,**

SAN FRANCISCO, - - - - - CAL.

E.C. HUGHES PRINTER
511 Sansome St., S. F.

THE**"SAN FRANCISCO MERCHANT"**

Is the Only Paper that Represents the

GRAPE, RAISIN AND WINE INDUSTRIES OF CALIFORNIA.

It is Replete with Accurate and Valuable Information.

SUBSCRIPTION, - - - THREE DOLLARS A YEAR.
(Payable in Advance.)

E. C. HUGHES & Co., Publishers,

511 Sansome Street.

STATE ANALYST'S WORK.

[From the Report of the Fourth Annual State Viticultural Convention.]

PROFESSOR W. D. RISING.

Mr. Chairman, ladies and gentlemen.—The work of the State Analyst has been for the most part analytical, so that it would not be in place to day to give any detailed account of that work, the most that I can do is to make a running comment on some of the work, and give you some idea of the class of work which has come under my observation.

Among the analyses which have been asked of the State Analyst, I will mention first a number of so-called preservatives. We have found one, for example, composed almost entirely of spirit, another of bisulphite of potash with boracic acid. Three samples of grape juice which has been preserved have been found to have been preserved in silicic acid. These are samples of so-called preservatives which have been presented for analysis.

Of coloring matters several samples have been presented which have been found to be aniline colors.

The Commission has submitted a number of wines, and many of them were experimental wines and special determinations were asked for. Those I will pass over entirely. The Commission has undertaken the study of a number of the best foreign wines with a view of comparing them with those of our own production. We have taken the best foreign ports made a complete analysis of them to determining the alcohol and sugar. The solid residue at 212 degrees the ash, soluble and insoluble, tannic acid, volatile acid, tartar glycerine. These are the principal determinations which have been made. It is too soon to give any comment on these wines. Their results can be made the basis of further study and comparison with our own wines.

Experiments were made on different wines of this State, plastered and unplastered. A number of experiments of this sort have been submitted for analysis and the results are varied.

Some wines which were sent from the East and which we believed or suspected to have been made not from grape juice but with artificial substances have been analyzed and there seems little doubt but that they were artificial wines. The Catawba, for instance, yielded 40 per cent. sugar, total solid residue, without a trace, or hardly a trace of cream of tartar. The alcohol or brandy, distilled from the wine, had nothing of the true brandy flavor, in fact the whole analysis and comparison of the wine indicated that it was a spurious wine.

A sample of port of the same manufacture and sold for medicinal purposes resembled very closely the Catawba. The three samples, Catawba, Port and Sherry, we were compelled to pronounce imitation wines.

The State Analyst was invited by the Commission at the time when a good deal of discussion was had in the papers, in regard to the possible danger to grapes from the use of arsenic, employed for the purpose of exterminating the grasshopper. I visited one of the regions where the arsenic had been used most freely and made personal examination, and reported at the time the result of that examination to the Commission. It was to the effect that no appreciable danger was to be apprehended from the use of arsenic. I will take a few moments to state the matter a little more fully, than was given at the time, the reasons for that conclusion.

The method in which the arsenic was applied was such as to preclude any probability or even possibility of the arsenic being carried by the wind and being lodged on the grape bunches. That was the point really at issue, whether the grapes by any means, either from the action of the elements, or whether carried by the insects, or any other way, could have been touched by the arsenic, whether the arsenic could have been deposited upon them or in them. I say the manner of applying the arsenic precluded the possibility of the wind carrying it, for it was mixed with bran or middlings, and syrup or glucose, so that it was hardened into almost a stiff paste or cake, and this was usually placed on a shingle or shake and laid about the vineyard. There was, therefore, no appreciable danger of it being blown about by the winds.

The next question which arose was in regard to the danger of the insects, the grasshoppers, carrying this arsenic and depositing it in any way upon the grapes. In a few instances I could see that the grasshoppers having lighted upon this paste had crawled afterwards on to the leaves of the vine, and their tracks could be easily seen because the arsenic destroyed the leaf wherever it came in contact with it, and in this way anyone would be able to trace the grasshopper as it crawled over the vine. But this was seen in only a few instances, and I do not think I was able to confirm a single one in which it had reached the berries. There was no indication of vomit being left on the berries, and in studying the habits of the grasshopper, and inquiring from those who were on the ground, I feel there is no danger from this source.

I found, however, that where the grasshoppers were most abundant, where their ravages were the greatest, that they had left a certain amount of excrement on the leaves, and when in the vineyards, I was afraid that this might be a source of danger; but a careful analysis of a considerable amount of this excrement which was collected, showed not a trace of arsenic, and the habit of the grasshopper, as gathered from those who watched him most closely, is that immediately upon eating the paste he sought the shade, and in confirmation of this, it may be stated, that the dead grasshoppers, without almost exception, are to be found under the vines, or under the clods at the foot of the vine.

In no case was the grasshopper found in the sun. It seems immediately on eating the arsenic, he felt the effect of it and retreated to the shade, or the water, if there was water close by, and died very quickly.

Three samples of grapes were taken from a place where the arsenic was found most abundant. Thirty or forty pounds were taken for exact samples, and then submitted to a chemical analysis for arsenic, and the result was that we were able to report no appreciable danger from arsenic to the grapes.

I will add at this time a few words of the danger to the soil, and to the wells that may arise from the application of the arsenic. Can plants take up arsenic, assimilate it, and afterwards when the plant or the fruit of the plant, becomes the fruit of man or animals, is there danger of poisoning from the arsenic which may have been taken up by the plant? I found upon studying the literature of this subject, that it had been carefully investigated by chemists at different times and in different countries. Careful investigation had been made at the experimental station in Germany, where arsenic was applied to plants. A certain amount may be taken up by certain plants. That seems to be the most that can be said. Yet the amount is small, for the plant is extremely sensitive to arsenic, and if any appreciable quantity is supplied in the food of the plant, the plant immediately withers and quickly dies from the effect of the arsenic. So that the danger is to the plant rather than to the animal which may afterwards consume the plant.

As a further confirmation on this point, arsenic is known to be present in certain wells in appreciable quantities, yet the healthfulness of the water from those wells has never yet been questioned. The mining Director in the Grand Duchy of Baden, had noticed that iron ores which came to him from certain localities for analysis were always impregnated with a certain amount of arsenic. He set to work and investigated the matter, and went from the iron ore to the iron springs, and he found that the iron springs, including some of the most famous, contained an appreciable quantity of arsenic—Weishaden and other springs showed arsenic. And in looking over the results of the Analysis of Springs, of the Grand Duchy of Baden, published by professor Benson, I find that every spring, or all that can be called iron springs, contain a trace of arsenic. An analysis of the soils of the Grand Duchy of Baden showed that those containing an appreciable amount of iron, also contained a trace of arsenic, showing its wide distribution in that Department at least, and the conclusions of the analysis of the mineral waters of the world will show that arsenic is very frequently present in those waters. If it has not been recognized in all cases it is due to the fact that special examinations have not been made for it. For it is only where a special examination has been made

for arsenic that it will be found. As a still further confirmation, the boiler crust of a steamer plying from Cologne to Bingen on the Rhine, was found to contain an appreciable trace or presence of arsenic. So much then for the wide distribution of arsenic. The experience up to this time is that the plants do not contain any appreciable amount, or any injurious amount at least, of the arsenic.

A word more in regard to the possible danger of contaminating wells. Upon this point I hope to continue a few experiments not yet concluded. Yet there have been experiments enough made to justify a statement of this sort, I think. Where a small quantity of arsenic was mixed with the soil and then bleached with water, the greater part of the arsenic was retained in the soil. In the case of iron soil I think we can affirm very positively that the arsenic will be entirely retained in the soil. In the case of calcareous soils the greater portion of the arsenic will be retained in the form of arsenic calcium.

This gives a brief synopsis of the work that has been performed in the State Analyst's office. I should not do right if I did not acknowledge the services of my assistant, Mr. Gaudjeau, who has been so active, and willing in the work of the office.

GOODYEAR'S
"COLD SEAL"
Rubber Hose,
For Sale by All Dealers.



GOODYEAR RUBBER CO.
R. H. PEASE, JR., AGENTS.
S. M. RUNYON,
577 and 579 Market St., SAN FRANCISCO.

ESBERG, BACHMAN & CO.
IMPORTERS OF

Chewing, Smoking & Leaf Tobacco.
HAVANA CIGARS AND LEAF.
225, 227 & 229 California St. and 122, 124
& 126 Battery Street.
SAN FRANCISCO.
And Nos. 7 & 9 NORTH FRONT ST. PORTLAND.

THE AMERICAN SUGAR REFINERY COMPANY,

MANUFACTURERS OF THE

CELEBRATED CUBE SUGAR,

Supplies Only Exporters and the Jobbing Trade.

This Company manufactures all the Grades of HARD and COFFEE SUGARS and SYRUPS. Special attention given to the making and Packing of Loaf Sugar for Export.

208 CALIFORNIA STREET,

SAN FRANCISCO, CAL.

E. L. G. STEELE,
President.

Dr. MINTIE

THE SPECIALIST,

No. 11 KEARNY ST., San Francisco.

Treats all Chronie, Special and Private Diseases with Wonderful Success.

THE GREAT ENGLISH REMEDY



is a never failing cure for NERVOUS DEBILITY, EXHAUSTED VITALITY, SEMINAL WEAKNESS, SPERMATORRHOEA, LOSS OF POWER, PROSTATITIS, IMPOTENCY, Paralysis and all the terrible effects of self abuse, youthful follies and excesses in mature years, such as loss of Memory, Lassitude, Nectum of Emissions, Aversion to Society, Dimness of Vision, Noises in the Head, excess in drinking intoxicating liquors, the vital fluid passing unobserved in the urine, and other diseases that lead to insanity and death.

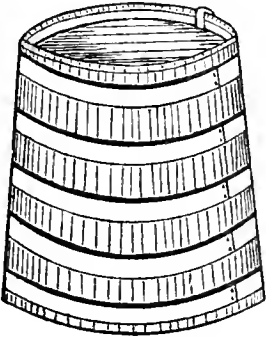
Dr. Mintie who is a Regular Physician Graduate of the University of Pennsylvania, who will agree to forfeit \$500 for a cure of this kind the Vital Restorative, (under his special advice and treatment) will not cure, or for anything impure or injurious found in it. Dr. Mintie treats all PRIVATE DISEASES SUCCESSFULLY WITHOUT MERCURY. Consultation Free. Thorough examination and advice, including analysis of urine, \$5. Price of Vital Restorative, \$1.50 a bottle or four times the quantity, \$5; sent to any address upon receipt of price, or C. O. D., secure from observation, and in private name if desired, by Dr. A. L. Mintie, 11 Kearny street, San Francisco, Cal. Send for pamphlet and list of questions.

SAMPLE BOTTLE FREE.

Will be sent to any one applying by letter stating symptoms, sex and age. Strict Secrecy in regard to all business transactions.

DR. MINTIE'S KIDNEY REMEDY NEPHRETICUM, cures all kinds of Kidney and Bladder Complaints, Gonorrhea, Gleet, Leucorrhea, etc. For sale by all Druggists; \$1 a bottle, 6 bottles for \$5.

DR. MINTIE'S DANDELION PILLS are the best and cheapest cure for **DYSPEPSIA** and **BILIOUS** cure in the market. For sale by all Druggists.

REDWOOD TANKS**F. KORBEL & BROS.**

727 BRYANT ST., S. F.,

Or at NORTH FORK MILL, Humboldt Co., Cal.

SHERWOOD HARNESS

This is the Greatest Novelty ever offered, and it is done away with. Traces and bobbles done away with.

Collar \$3.00
Lines 2.25
Bridles 2.25
EXTRA.

PRICE \$7.50
ONLY \$4.00

TRUMAN, ISHAM & HOOKER, San Francisco.

IF NOT SATISFIED, WE PAY ALL FREIGHT.

J. N. KNOWLES, MANAGER

EDWIN L. GRIFFITH, SECRETARY.

ARCTIC OIL WORKS.

MANUFACTURERS OF

Sperm Whale, Elephant and Fish Oils, Skid Grease,

WHALE OIL SOAP.

ESPECIALLY ADAPTED FOR VINEYARDS AND FRUIT ORCHARDS.

OFFICE—25 CALIFORNIA STREET, S. F., Cal.

EL PINAL VINEYARD,

Stockton, Cal.

Cuttings and Vines For Sale of the following varieties:

PETIT BOUSCHET, MONDEUSE, VERDOT, ALICANTE BOUSCHET, BOAL, CABERNET FRANC, MALBECK, CABERNET SAUVIGNON, MANTUO DE PILAS, MANTUO CASTILLANO, PEDRO XIMENEZ, MALMSEY, LENOIR, PALOMINO, VERDELHO, TANNAT, PERUNO, VEGA.

And other recently imported varieties, including True Port and Sherry varieties from Spain and Portugal.

GEO. WEST, Stockton, Cal.

TO CLARIFY WINES,

(BOTH WHITE AND RED)

WAHL BROS.**GRANULATED ISINGLASS**

HAS NO EQUAL.

It is SUPERIOR and CHEAPER than any other ISINGLASS in the Market.

Try It.

Send for Sample.

JOHN T. CUTTING & CO., Agents.,

23 CALIFORNIA STREET,

San Francisco.

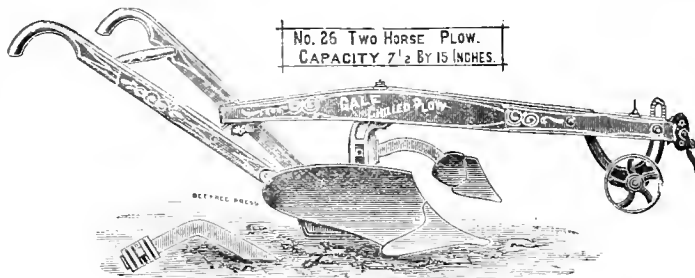
VINEYARDISTS AND ORCHARDISTS,

WE CALL YOUR ATTENTION TO OUR

Celebrated Gale Chilled Plows.

WHICH ARE THE HARDEST CHILLED IRON PLOW MANUFACTURED,

And the Highest Draught Plows Ever Used. Will Scour Any Kind of Soil.

**GALE'S CHILLED METAL**

Presents itself as the important feature, being harder than any other plow metal and so fine in fiber that it will receive a polish almost equal to a mirror. Its fiber does not run parallel with the surface of the casting, as with cast iron and steel; but its direction is through the mold-board, thus bringing the friction of the soil on the end of the fiber or grain. This feature avoids all reasonable possibility of imperfections being hidden below the surface.

The wood-work of the Gale's is made from the best quality of White Oak timber, carefully selected with reference to the use intended. The Beam is placed in the center of its work, thus securing a center draught under all circumstances. It is secured to the plow by two bolts—one through the slotted standard head in the center of the beam, and the other through the handle brace at its rear end.

We guarantee our Gale Chilled Plow to do as good or better work than any chilled plow in the market. If after two day's trial, any of our Gale's Plows should not give perfect satisfaction, it can be returned to us and we will refund the money.

For prices and other information address

BAKER & HAMILTON,

San Francisco and Sacramento.

The Contest Settled.

The Documents Speak For Themselves.

Below We Publish the Awards as Given, Diploma, Gold Medal and Special Mention.

HIGHEST AWARD

-- AT THE --

New Orleans Exposition

-- TO THE --

ANTISELL PIANOS

-- OF --

SAN FRANCISCO, CAL.

IT WILL INTEREST THE MUSICAL PUBLIC AND persons interested in the purchase of Pianos to read the following Jury's award and congratulation of the United States Commissioners at the New Orleans Exposition to the T. M. Antisell Piano Company of San Francisco, Cal.

THE WORLD'S INDUSTRIAL AND COTTON CENTENNIAL EXPOSITION.

NEW ORLEANS, MAY 29, 1885.
MENSRS. T. M. ANTISELL PIANO CO.—GENTLEMEN: At the closing of the World's Industrial and Cotton Centennial Exposition, allow us to congratulate you on your success in being awarded the highest award of merit for your Pianos over all American and foreign exhibitors and competitors. That a California manufacturer should win the first prize for the best Piano in the World we consider well worthy of mention by United States Commissioners of this Exposition.

Frank Bacon, Pres., Bd. U. S. Com., Kansas.
George L. Shroup, " " Idaho.
Robt. W. Furnas, " " Nebraska.
John C. Kiefer (acting), " " Ohio.
R. E. Flemming, United States Com'r, Dakota.
John S. Harris, " " Montana.
E. W. Allen, " " Oregon.
E. W. Murphy, " " Arizona.
F. W. Noble, " " Michigan.
W. H. Sebring, " " Florida.
P. M. Wilson, " " N. Carolina.
I. C. Truman, " " New York.
E. Spencer Pratt, " " Alabama.
E. J. Roche, " " S. Carolina.
C. L. Barrow, " " Louisiana.
Henry Merrell, " " Wyoming.
P. Langhammer, " " New Mexico.

THE WORLD'S INDUSTRIAL AND COTTON CENTENNIAL EXPOSITION, NEW ORLEANS.

JURY REPORT

Application No. Special.
Group Class

COMPETITION.

The undersigned jurors in the above entitled class having carefully examined the exhibit made by the ANTISELL PIANO COMPANY OF SAN FRANCISCO, CAL., and all competing exhibits, concur in recommending the award of a FIRST CLASS MEDAL AND DIPLOMA, THE HIGHEST AWARD OF MERIT FOR PIANO EXHIBIT FOR STRENGTH, DURABILITY, EXCELLENCE OF TONE, AND FOR THE SUPERIOR QUALITY OF LUMBER USED IN THE CONSTRUCTION.

Dated this 27th day of May, 1885.

JAS. C. TRUMAN, } Jurors.
FRANK BACON, }
GEO. L. SHROUP. }

It will be observed that the President of the United States Board of Commissioners, Governor Bacon of Kansas, was also a member of the Jury that gave the Antisell piano award; also Colonel Truman of New York and Colonel Shroup of Idaho. These gentlemen not only signed our jury report, but also the special mention. We thus give positive proof of our victory. Four other awards are claimed by piano manufacturers, but we have never seen any evidence of their premiums, not even to the value of a leather medal—simply their own assertion. False telegrams and publications from New York won't humbug Californians. It won't do to say that the Antisell pianos were not entered for exhibition or competition. No piano could be got into the exhibition unless regularly entered. Now York manufacturers are trying to break down our awards, as they don't like to see San Francisco carry off the honors.

T. M. Antisell Piano Co.

24 to 28 ELLIS ST., S. F.

HONOLULU**CASTLE & COOKE,****SHIPPING AND****COMMISSION MERCHANTS**

Honolulu, Hawaiian Islands.

—AGENTS FOR—

THE KOHALA SUGAR CO.,
THE HAIKU SUGAR CO.,
THE PAPAIOKOU SUGAR PLANTATION
THE WAIALUA SUGAR PLANTATION
THE PAIA PLANTATION
A. H. SMITH & CO.,
THE N. E. M. LIFE INSURANCE
CO. BOSTON.
THE UNION INSURANCE CO.
OF SAN FRANCISCO.
THE GEO. F. BLAKE MFG CO.,
STEAM AND VACUUM PUMPS,
D. M. WESTON'S CENTRIFUGAL
MACHINES.

WM. G. IRWIN & CO.

SUGAR FACTORS AND

COMMISSION AGENTS

Honolulu, H. I.

—AGENTS FOR—

HAKALAU PLANTATION.....Hawaii
NAALEHU PLANTATION.....Hawaii
HONOLULU PLANTATION.....Hawaii
HULEA PLANTATION.....Hawaii
STAR MILLS.....Hawaii
HAWAIIAN COM'L & SUGAR CO.....Maui
MAKEE PLANTATION.....Maui
WAIHEE PLANTATION.....Maui
MAKEE SUGAR CO.....Kaua
KEALIA PLANTATION.....Kauai

Agents for the

OCEANIC STEAMSHIP COMPANY.**GRAPE VINE TWINE**

THE BEST ARTICLE

FOR TYING UP VINES

IN THE MARKET.

Put up in Balls of 4 lbs. Each.

12 Balls in a package.

TUBBS & CO.,

613 FRONT ST., San Francisco.

R. J. TRUMBULL, CHAS. W. DEERE.

R. J. Trumbull & Co.

GROWERS,

Importers and Dealers in

SEEDS,**TREES AND PLANTS.**

419 & 421 Sansome St.,

Bet. Clay & Commercial, San Francisco.

**QUARTZ BREAKERS
—AND—
PULVERIZERS COMBINED!****ANGLO - NEVADA
Assurance Corporation**SAN FRANCISCO, CAL.
FIRE and MARINE.

Subscribed Capital \$2,000,000.

OFFICE: 410 PINE ST.

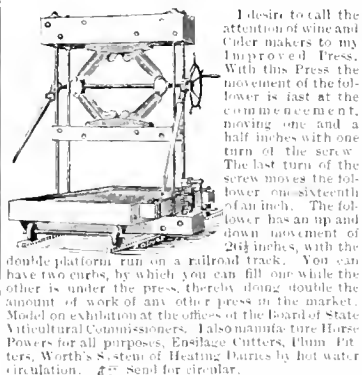
DIRECTORS:

LOUIS SLOSS, J. W. MACKAY,
J. B. HAGEN, W. F. WHITIER,
J. ROSENFIELD, E. E. EYRE,
J. L. FLOOD, E. L. GRIFTITH,
G. L. BRANDER, J. GREENEBAUM,
W. H. DIMOND.

This Corporation is now prepared to receive applications for Fire and Marine Insurance.

E. L. BRANDER, President
J. L. FLOOD, Vice President
C. F. FARNFIELD, Secretary
J. S. ANGLES, Assistant Manager

Bankers—The Nevada Bank of San Francisco.

**WORTH'S IMPROVED
PATENT
COMBINED TOGGLE LEVER****—AND—
SCREW PRESS.****W. H. WORTH,**Petaluma Foundry and Machine Works,
Petaluma, Sonoma Co.; Cal.

Testimonials from: I. De Turk, Santa Rosa; J. E. J. Portal, San Jose; Ely T. Sheppard, Glen Ellen; Kate E. Warfield, Glen Ellen; J. H. Drummond, Glen Ellen; Joseph Walker, Windsor; John Hunkelman, Fulton; Wm. Peffer, Galesville; J. A. Muller, Windsor; R. C. Miller, Colusa; Lay Clark & Co., Santa Rosa; Vacker, Fresno; Old San Bernardino; J. F. Crank, Wilton; Allen, San Gabriel; James Emmons, R. A. J. J. Goble, Healdsburg; W. Metzger, Walter Phillips, Santa Rosa; J. Lawrence, Watson, Glen Ellen; Geo. West, Stockton, can be had by applying for circulars.

**HERRMANN & CO.,
HOP MERCHANTS.**

Importers and Dealers in

CORKS, BREWERS' AND BOTTLERS' SUPPLIES,
TO WHOLESALE AND RETAIL.**ALEX. FRIES' & BROS. COGNAC OILS,
ESSENCES AND FLAVORS.**

331 SACRAMENTO ST., San Francisco.

S. P. COMPANY.**QUICK TIME AND CHEAP FARES**

To Eastern and European Cities

Via the Great Transcontinental All Rail Routes.

GO OFF

**SOUTHERN PACIFIC
COMPANY.**
(PAID SYSTEM)

Daily Express and Emigrant Trains make prompt connections with the several Railway Lines in the East.

CONNECTING AT

NEW YORK AND NEW ORLEANS
with the several Steamer Lines to**ALL EUROPEAN PORTS.****PULLMAN PALACE SLEEPING CARS**
attached to Overland Express Trains.**THIRD-CLASS SLEEPING CARS**

are run daily with Overland Emigrant Trains.
No additional charge for Berths in Third class Cars.
If Tickets sold, sleeping car Berths secured, and other information given upon application at the Company's offices, where passengers calling at person can secure choice of routes, etc.

Railroad Lands

FOR SALE ON REASONABLE TERMS.

Apply to, or address,

W. H. MILLS, JEROME MADDEN,
Land Agent, Land Agent,
C. P. R. L. SAN FRANCISCO, S. F. R. L. SAN FRANCISCO

A. N. TOWNE, T. H. GOODMAN,
General Manager, Gen. Pass. & Tkt. Agt.
SAN FRANCISCO, CAL.

**THE SOUTHERN PACIFIC CO.,**

Respectfully invites the attention of TOURISTS AND PLEASURE SEEKERS to the SUPERIOR FACILITIES afforded by the "Northern Division" of its line for reaching the principal

SUMMER AND WINTER RESORTS OF CALIFORNIA

WITH SPEED, SAFETY AND COMFORT.

Pescadero, Menlo Park, Santa Clara,
San Jose, Madrone Mineral Springs,
Gaiety Hot Springs.

-MONTEREY-

"THE QUEEN OF AMERICAN WATERING PLACES"

Camp Goodall, Aptos, Loma Prieta,
Monte Alito, New Brighton, Sequel,
Camp Capitola, and

SANTA CRUZ.**PARAISO HOT SPRINGS.**

EL PASO DE ROBLES
HOT AND COLD SULPHUR SPRINGS,
And the only Natural Mud Baths in the World.

This Road runs through one of the richest and most fertile sections of California, and is the only line traversing the famous Santa Clara Valley, celebrated for its productiveness, and the picturesque and park-like character of its scenery; as also the beautiful San Benito, Pajaro and Salinas Valleys, the most flourishing agricultural sections of the Coast East.
Along the entire route of the "Northern Division" the traveler will meet with a succession of Extensive Farms, Delightful suburban Homes, Beautiful gardens, Immense olive Orchards and Vine yards, and Luminous Fields of Grain; indeed a continuous panorama of enchanting Mountain, Valley and Coast scenery is presented to the view.

Characteristics of this Line:

GOLD-FULL STEEL RAIL, LIGHT CARS,
LOW FARE, FAST TIME, ONE SCENERY

TO GET OFF: Passenger Depot, Townsend Street,
Valencia St. Station, and No. 613 Market Street,
Grand Hotel.
A. C. BASSETT, H. R. JUDAH,
Superintendent, Asst. Pass. and Tkt. Agt.

EDWARD \$10-\$50 TO EVERY PERSON
sending us valuable information of school vacancies and needs. No trouble or expense. Send stamp for circulars to CHICAGO SCHOOL AGENCY,
185 South Clark Street, Chicago, Ill.
N. B. We want all kinds of Teachers for Schools and Families.

SHIPPING.**OCEANIC STEAMSHIP COMPANY.**

Carrying the United States, Hawaiian and Colonial mails for

HONOLULU,

AUCKLAND,

and SYDNEY

WITHOUT CHANGE.

The splendid new 3,000-ton Steamship

**ALAMEDA**

Will leave the Company's wharf, corner Steuart and Folson streets,
SATURDAY, MAY 8th, at 2 P. M.
or immediately on arrival of the English mails.

FOR HONOLULU AND RETURN

AUSTRALIA Wed. May 19th

For freight or passage apply at office, 327 Market at
JOHN D. SPRECKELS & BROS.,
General Agents.

**OCCIDENTAL & ORIENTAL STEAMSHIP
COMPANY.****for JAPAN AND CHINA.**

Steamers leave Wharf, corner First and Brannan sts.,
at 2 o'clock, P. M., for

YOKOHAMA and HONGKONG.**TOUCHING AT HONOLULU,**

And Connecting at Yokohama with steamers for Shanghai.

1886.

STEAMER, FROM SAN FRANCISCO,
RELIEF, TUESDAY, MAY 11th
SAN PABLO, TUESDAY, JUNE 1st
OR ENIC, TUESDAY, JUNE 22d

EXCURSION TICKETS to Yokohama and return at reduced rates.

Cabin plans on exhibition and Passage Tickets for sale at C. P. R. Company's General Offices, Room 74, corner Fourth and Townsend streets.

For freight apply to GEO. H. RICE, Freight Agent,
at the Pacific Mail Steamship Company's Wharf, or
at No. 202 Market street, Union Block.

T. H. GOODMAN, Gen. Passenger Agent.
LELAND STANFORD, President

D. H. PORTER, A. W. PORTER,

Porter Bros. & Co.,

Successors to

**MEAD & RUNYON,
COMMISSION MERCHANTS,**

404 & 406 DAVIS STREET,

P. O. Box 2169, San Francisco

Consignments solicited and special attention paid
to shipping orders.

Branch in Los Angeles, Cal.

FREDK WM. LUTTGEN,

COMMISSION MERCHANT,

(P. O. Box 823) 31 Warren St., New York.

Solicits consignments of California Produce, and
orders for the purchase of Merchandise, generally.
Eastern Agent for Eclipse Champagne.

JAMES HUNTER

GAUGER OF WINES AND SPIRITS.

(Established 1851.)

OFFICE—423 FRONT STREET,

San Francisco.



IMPORTERS OF ALL KINDS OF

Printing and Wrapping Papers

101 & 403 SANSOME ST., S. F.

THE FRANCISCO SAN MERCHANT.

THE ONLY VITICULTURAL PAPER IN THE STATE.

Devoted to Viticulture, Olive Culture, and other Productions, Manufactures and Commerce of the Pacific Coast.

VOL. XVI, NO. 3.

SAN FRANCISCO, MAY 21, 1886.

PRICE 15 CENTS

QUESTIONS

Relating to the Legitimate Use of Wine Spirits in Fortifying Wines and the Discriminations of Law Against Domestic Products.

CORRESPONDENCE WITH THE COMMISSIONER OF INTERNAL REVENUE.

TREASURY DEPARTMENT,
WASHINGTON, D. C., March 3, 1886.
Chas. A. Wetmore, Esq.—DEAR SIR:—As there is legislation pending at the present session of Congress, which is intended to allow the use of spirits, free of tax, for the purpose of fortifying native wines, I will thank you for a statement showing under what circumstances and to what degree the use of spirits for such purpose is necessary or desirable.

Yours truly,

Jos. S. MILLER,
Commissioner of Internal Revenue.

WASHINGTON, D. C., April 26, 1886.

Hon. J. S. Miller, Commissioner of Internal Revenue, Treasury Department—SIR: Replying to your favor of March 3rd, 1886, which I have had the honor to receive, permit me briefly to make a brief resumé of certain operations in legitimate wine making, which relate to your inquiry.

Technically, pure simple wine is the product of fermented grape-juice, fermented with or with the skins, seeds, pulp and stems. In practice, certain wines receive an addition of spirits to preserve them from disease and loss of saccharine matter. With the exception of certain simple treatments, recognized as legitimate in caring for wine, no substance which are not naturally part of the grape can enter into the composition of strictly pure wine.

Other fruits are also fermented, and their products should be recognized as wines, if pure, just as the distillates of all fruits are, properly speaking, brandy. Cider is probably the purest and simplest form of such wines.

For practical purposes, wines may be divided into two important classes, viz.:

First—Absolutely dry wines, the natural sugar of the fruit being all converted by fermentation into alcohol, or spirit, and carbonic acid gas, the gas escaping, unless confined as with champagne. No consumer of such wines expects to find in them any distilled spirits. A broad distinction is

made by medical authority between the effects on the human system of the use of beverages, such as wine, which is the simple product of fermentation, and distilled spirits. Properly speaking, wine, unless fortified, is not an alcoholic beverage; some of the properties of alcohol, such as its corrosive power and its attendant impurities, fusel oil, etc., being the result of the operation of distillation. Distilled spirits restored to wine never become re-incorporated as they were before distillation. The spirit of pure wine is not, at least so far as it may be considered with reference to use as a beverage or a medicine, identical with wine spirits after distillation.

Knowing these things, wine consumers are cheated and possibly injured whenever any wine, not recognized as fortified or alcoholic, is furnished to them, containing distilled spirits in any degree sufficient to materially affect the strength of the liquid.

Second—Alcoholic, or fortified wines. These were originally invented in order to market wines that could not be thoroughly fermented, such as the Ports of Portugal, the grapes containing more sugar than would ferment out dry. Such wines, during storage and transportation, are always in danger of disturbance, owing to the presence of fermentative substances, and in most cases become diseased and ruined as beverages. A certain percentage of alcohol added to imperfectly fermented wines checks further fermentation and acts as a preservative. Hence the practice of fortifying sweet wines. Custom has created a demand for fortified sweet wines, and also the addition of sweetness to wines, such as dry Sherries, in which latter case they require fortification. The addition of a few degrees of alcohol to some dry wines prevents also vinegar fermentation, when such wines are exposed to the atmosphere; hence, in making dry Sherries by natural processes, as in Spain, the casks never being kept full, two to four per cent of alcohol is frequently added in case of necessity; further fortifications not being required until the wine is sweetened.

A good natural dry Sherry may be a wine with no more strength than a good Rhine wine.

Other methods for preserving sweet wines are possible, but not generally practical; most of such methods are dependent on the use of antiseptics, such as salicylic acid, sulphide of soda, etc., injurious to the health of consumers. Some of the "infer-

ment-d" wines—"non-alcoholic," such as are occasionally demanded for use in religious ceremonies when there is an objection to a fermented beverage, are really most noxious adulterations of grape-juice, which in other countries are suppressed by law.

Two principles ought to be recognized in determining the legitimate character of wines, viz.:

First—Only those wines which contain saccharine matter of the types known to consumers as alcoholic wines or liqueurs, or Sherries which must be treated by exposure to the action of the atmosphere, should contain any distilled spirits of sufficient quantity to affect their strength materially.

Second—Dry wines, other than dry Sherries, require no addition of distilled spirits, and should not be recognized as genuine if forfeited.

The practice of trade more or less modifies the application of the latter principle. Wines are sometimes too light in spirit to satisfy some consumers, or too weak to keep sound; such products, if not used for distillation, should only be strengthened by blending (mixing) with stronger and firmer wines; but the trade sometimes fortifies with distilled spirits. This practice should not be encouraged, because the wine maker has it in his power to obtain sufficient strength by a less objectionable method, viz., the addition of pure sugar to the grape juice during fermentation.

Young wines generally require a certain length of time to finally complete fermentation, and to free themselves of exhausted ferment. During this time, if transported, they are liable to diseases caused by the presence of fermentative matter. It is a practice in trade to add a small percentage of alcohol to such wines, when they attempt to place them before maturity on the market, or to resort to other methods, some of which involve the use of antiseptics, such as salicylic acid. There is no excuse for such treatments, except haste to realize on products. Wines should be matured before offered for consumption; or the practice of killing ferments, according to Pasteur's method of heating wines, should be followed.

The strength of wines produced by fermentation operates in preservation against wine diseases in less degree than distilled spirits, illustrating in wine itself the similar phenomena observed in the use of these substances as food: in other words, its

influence on forms of life—for germs of ferment are living organisms—is not appreciable in ordinary dry wines; hence it often happens that a very light wine, such as Bordeaux Claret, will keep and transport well, while a stronger Burgundy will easily spoil. These difficulties can be overcome by good wine makers or dealers, without the use of distilled spirits; blends can be made with wines of good keeping qualities; natural grape tannin can be used to assist in completing the defecation of wine, and due care in holding stocks can be exercised until thorough maturity.

Practices of trade and of imitation wine makers sometimes involve the use of distilled spirits for other purposes than those which relate to simple preservation of their goods. The worst of these consists in utilizing spirits, which can be bought for less price than the equivalent strength of natural wine, for the purpose of "stretching" or lengthening their merchandise, and so making compounds at less cost than genuine wine. To illustrate this operation, let me explain a hypothetical case:

A pipe of Claret is delivered to the New Orleans market, containing by simple fermentation ten per cent of alcohol, costing after transportation to that point say fifty cents per gallon. Proof spirits contain fifty per cent of alcohol; and grain alcohol, tax paid, may be purchased at about one dollar and ten cents per proof gallon (according to market variations subject to slight change of price.) A mixture of such alcohol and water—ten per cent strong—would cost twenty-two cents. A further mixture of the wine with this water and alcohol in equal parts would cost thirty-six cents for the mixture per gallon, or fourteen cents less than the pure wine, although the alcoholic strength of the compound is equal to that of the wine. Such mixtures are actually made, and lead to further adulterations to conceal weakness of flavor, color, etc. The cheaper the distilled spirits, the more profitable is this operation to the compounder, and the greater the inducement to such frauds. At the point of original production, the value of ordinary grades of wine is therefore more or less controlled by the price of alcohol: in California, for instance, our large vintages of ordinary dry wines, sold in bulk without cooperage, range quite steadily in the vicinity of twenty-five cents per gallon, if sound and containing about eleven per cent of natural spirit; if weak in

strength, they are discounted; if deep in color and rich in fine flavor, they are at a premium. If distilled alcohol were cheaper, these wines would be cheaper. If they could be dosed with alcohol at less cost than the natural strength of wine, the temptation would exist to do so, in order that when delivered to other markets they may be reduced in strength to standard degree of about ten per cent, and so increased in volume by addition of water. That such practice is common after the cost of the original wine has been enhanced by transportation and mercantile profits, cooerage, etc., is shown by the prices of ordinary Clarets delivered to consumers in New Orleans, which is reported to be as low as thirty-six cents per gallon. That such mixtures are also adulterated perniciously I can show by a recent analysis of wine taken from a leading house in New Orleans, showing it to contain an aniline dye and salicylic acid; the dye was introduced to preserve color after stretching with water, and the salicylic acid to keep such poor stuff bright. Such mixtures are not only unwholesome, but they are also not genuine wines, which purchasers suppose they are receiving; producers of wine are cheated of a part of their market, and consumers are defrauded not only of their health and property, but also of that satisfaction which constitutes the incentive for an increased market demand to which producers are entitled.

The foregoing explanation will serve to show that the Government should not encourage such compounding by granting any special facilities for cheapening the use of distilled spirits in dry wine compounds. Sweet wines cannot be reduced in strength by addition of water, unless they have been excessively fortified, because when reduced the sugar will ferment; hence the rule as to discouragement of the use of spirits in fortification does not apply as in the case of dry wines; moreover, in using sweet wines, people know them to be fortified, and are sparing in the quantity consumed.

There are also purely imitation wines made, the spirit of which is more or less cheap distilled alcohol. These are generally sold at a very low price to dealers, who "stretch" genuine wines with them. Most of these imitations are grossly adulterated. It is not to the interest of the people to cheapen the cost of distilled spirits used in such abominations, whether sweet or dry.

At present, with exceptions noted, all distilled spirits used in wines, whether pure or spurious, are taxed either ninety cents per proof gallon, if domestic, or two dollars, if imported. The price prevents the use of the foreign goods, except as will be noted.

Imported wines, increased in strength by the use of free spirits in foreign countries up to a legal limit of twenty-four per cent of alcohol, or forty-eight per cent of proof spirits, are admitted without duty on the distilled spirits, or at the same rate as ordinary dry wines. In England, fortified wines pay 2s. 6d. per gallon duty; natural dry wines, only 1s. In France, all wines over 15 per cent in strength pay extra tax, when imported. When exported from foreign countries, fortified wines pay no tax on the distilled spirits in them. Our own sweet wines could find a large foreign market if it were not for the discrimination against us in trade by reason of our law which prevents fortification with free spirits. By reason of the fact that the spirits in sweet wines are partly fermented and not taxed and partly distilled and taxed, it would be impracticable to determine, without danger

of fraud, the amount of distilled spirits, if the Government should permit a drawback for exported sweet wines.

I shall refer in a future letter to the construction of custom laws which permits compounders of wine to use foreign spirits free of tax when imported under the name of fruit juice.

Inasmuch as we compete in home markets with imported sweet wines on which there has been no tax upon the distilled spirits used in them, and as we cannot go into foreign markets with domestic tax-paid spirits in sweet wines, our genuine producers ask the Government to relieve them from a law which operates unjustly; but at the same time to guard the use of free spirits so as to prevent it for any other purpose in wine treatment.

Only spirits distilled from wine should be used to fortify wine. No other spirits can be used without demoralizing genuine wine production. Neutral grain alcohol is sometimes used, but only because it is cheaper than grape spirits. The spirit distilled from wine develops flavors derived from the fruit, and in sweet wines improves with age; grain alcohol does not permit such improvement. Wine drinkers, moreover, are taught to believe that grain spirits are not as wholesome as fruits spirits, and do not generally suppose that their fortified wines are mixtures of whisky and wine. The vineyard is capable of satisfying its own wants, and has no need of going to the grain distillery; no law should be passed which would force wine makers to use grain spirits instead of their own products. In legislating concerning wine, the grain distiller has no right to claim part in the work of wine making; nor has the compounder of spurious goods any honorable standing before officers of the people.

In the demands of genuine sweet wine makers there are two questions involved, viz.:

First—The right to use part of their own pure wine spirits, restored to the form of wine, to preserve their products, with limitations as to quantity, time of operation and kind of wine treated, and provisions against fraud.

Second—Where the wine maker is not a distiller of wine spirits, the right to procure, free of tax, such wine spirits as he may need in fortifying sweet wine, under limitations, etc.

Every wine maker can and should have his own still; hence the producers of California would be content with the limitation of free spirits to wine makers who distill their own brandy.

There are some wine makers in other States, however, who think that it is impracticable for them to distill, and who claim that they should have the right to withdraw wine spirits from bond for fortifying sweet wines. The producers of California may readily consent to such privilege of withdrawal, provided the law is so carefully enacted that such free spirits cannot be used for any purpose except the proper fortifications of pure sweet wines, especially guarding against assistance to compounders of spurious goods. So long, however, as it is possible for all wine makers to become distillers, where the practice of fortification with free spirits can be regulated by the Government, we think that the first demand should not be antagonized if for any reason the Government should deny the withdrawal from bond.

The sweet wine makers of States east of California have not the same necessity to demand encouragement of law as those of

California. Grapes grown in California are frequently so sweet that it is impossible to make anything but sweet wines with them; and genuine Ports, Angelicas, etc., may be made in large quantities without the use of any material not produced in the fruit. Elsewhere in this country sweet wine is simply wine sweetened with sugar, and in cases where only the spent pomace of expressed grapes is used to give a fruit flavor, the process is purely artificial; cane sugar, or glucose and water are added to the spent pomace (residuum from the wine press) and fermented and then the sweet liquor resulting is fortified with grain spirits. Such products might be called rum and gomme and whisky, flavored with grape skins.

While our Pacific coast producers are willing to concede the use of cane sugar as an essential part of wine making in Atlantic States, they are too jealous of the good name of their industry to go further and to concede also grain spirits free of tax in fortifying sweet wines which nature does not call upon the vine grower to produce.

Grain alcohols are so cheap, when free of tax, that competition in prices for all ordinary grades of sweet wine would force all wine makers to use them, if free, instead of their own wine spirits. Grape spirits without tax, in bond, are worth, according to quality, when new, from eighty cents to one dollar and a quarter per gallon, and much more for extra fine goods. Only good qualities can be used in fortifying good wines, and the tendency of genuine wine trade is towards improvement in quality. Grain alcohol, free of tax, varies according to distance from distillery, only as transportation and mercantile profits vary. It can be bought in San Francisco, remote from production, at twenty-four cents per proof gallon, cooerage excluded. It is worth much less in Ohio and Missouri. To grant the free use of grain as well as grape spirits in making sweet wine would not only be an uncalled for privilege, but would in effect be to prohibit the use of grape spirits for such purpose.

It requires five gallons of wine, ten per cent strong, to make one gallon of brandy at proof. Such wine, if good brandy is demanded, will always be worth at least twenty cents per gallon; finer brandies are distilled from more costly wine. The cost of brandy making, including interest on plant, owing to the relatively small operations of the distiller, is at least ten cents per gallon; so it may be assumed that the cost of brandy for fortifying good wine will be from one dollar to one dollar and ten cents per gallon without tax; producers on the Pacific coast must add to the cost of wine, when competing in Eastern markets, twelve to fifteen cents per gallon for transportation for car load lots. This added to the cost of brandy puts them far ahead in cost of material when competing against Eastern markets, even though the latter use tax paid grain alcohol. It cannot be said, therefore, that any advantage would be given in trade to producers of pure sweet wines, even if they have free fortification with grape spirits.

Our producers will appeal to the Government, therefore:

First—For relief in fortifying wines with wine spirits.

Second—For vigilant protection against extension of favor of Government to spurious wine makers.

Third—For protection against any attempt to force upon us grain spirits.

Free grain spirits would be fatal to the quality of our ordinary sweet wines, and would deprive vine growers of an outlet for their own products of distillation.

Free spirits to fortify any, except sweet wines, would lead to stretching unlimited, and would destroy the value of vineyards.

Free grape spirits, limited as asked, would enable us to compete fairly with foreign sweet wines, would not decrease public revenues, because spirits so used would not displace tax paid brandies on the market—which will always be produced equal to demand, and would be a factor in our commercial prosperity.

For exportation we would call your attention to the fact that we cannot control the tastes and demands of foreign markets. France, for instance, imports largely, for blending with very light weak wines, great quantities of wine from Spain, fortified up to the limit permitted by the tax on entry, viz: fifteen per cent of alcohol. California will need next year to commence the exportation of wine, and we expect even in Bordeaux a market which will demand ordinary wines of maximum strength. For reasons such as this, in exportation we need the privilege of free fortification of any kind of wine according to market demands, with proper provisions against re-importation of such goods without tax on spirits added to them. It is the commercial custom even with good Bordeaux Clarets to add one per cent of spirit when exporting to protect them on long voyages through warm latitudes, during which time they cannot receive cellar nursing.

Respectfully yours,

CHAS. A. WETMORE,

Chief Executive Officer, State Viticultural Commission of California.

WASHINGTON, D. C., April 27, 1886.

Hon. J. S. Miller, Commissioner of Internal Revenue, Treasury Department—Sir: In my recent communication relating to the circumstances under which, in genuine wine making, it is legitimate to use distilled spirits, I referred to the taxes (under Customs and Internal Revenue laws) levied on such spirits, and showed that they could not, except in the case of imported wines, or compounds with so-called imported "fruit-juices," be used without taxation. In other words, only foreign spirits are permitted to enter into our wines without taxation.

In this communication permit me to show how, by reason of the rulings permitting alcoholic compounds to be entered as fruit-juices, not only is legitimate wine making caused to suffer, but also are the revenues of the Government seriously impaired. To attract your interest in this subject more particularly by illustration, I will undertake to show that by preventing such smuggling of foreign spirits the Government would save more money than would be required to enforce the proposed bill against spurious and adulterated wines.

The tariff permits the entry of foreign "fruit-juices" at an *ad valorem* tax of twenty per cent. Under this classification hundreds of thousands of gallons of so-called fruit juices are being imported, notwithstanding they contain large proportions of alcohol. According to rulings of the Customs officers, it is sufficient that commerce shall call any liquid a fruit juice to justify this classification; and proof to the contrary, as to the actual character of the merchandise, is not sufficient to prevent the fraud.

Most of this material is known as "cherry juice," some as "bilberry juice," and some as "prune juice." If pure, as pretended, and fermented or prepared with spirits, such "cherry juice," etc., is simply either a cherry wine, or an alcoholic compound, and should be taxed as wine at fifty cents per gallon, or as an alcoholic compound at two dollars per gallon.

As will be seen by the accompanying copy of a letter from the office of the Collector of the Port of San Francisco, seventy thousand gallons of this compound were admitted at that port alone during the last year, on which was collected only the amount of four thousand dollars. The entered value was \$20,000, the average appraised value being therefore nearly twenty nine cents per gallon, and the average duty per gallon less than six cents. As to the quantity imported into the United States at all ports I am unable to write, because, extraordinary as it may seem, there is no record published or attainable without search in each of the offices. The Bureau of Statistics has no data on the subject. It has been the interest of importers and compounders of this material to keep as quiet as possible, while milking this off-teat of the public treasury.

These fraudulent "fruit-juices" are used solely for compounding with wines, the alcohol contained in them being the chief object of value, and the coloring matter second. For some time, as the records of the Department will show, importers attempted even to bring in such material containing even more than forty per cent of absolute alcohol, or about ninety per cent of proof spirits, the reduction from proof being only due to the addition of a small quantity of fruit-juice, or other substance appearing to be such. This fraud was too apparent and caused the Department to rule that not more than twenty per cent of alcohol, or forty per cent of proof spirits should be permitted as essential to the preservation of the fruit-juice. Now, the importers content themselves with smuggling in this way not exceeding the amount allowed by the ruling for which there is no authority of law.

To illustrate what is possible under this commerce let me explain what you or I might do if we should go into this business. Alcohol from grain, without tax, in foreign ports is worth about twenty cents per proof gallon. To make a mixture in a liquid of twenty per cent, alcohol (forty per cent proof spirits) would cost for the spirits about eight cents. To dose this liquid with fruit-juices and coloring matter, or with imitations of fruit-juice by means of tartaric acid, etc., would cost not more than five cents per gallon. At our ports this mixture, under the name "fruit-juice," would be appraised according to some indefinite rule recognizing its alcoholic strength as the chief varying element of value, notwithstanding it is claimed that the fruit-juice and not the alcohol is the important factor. I have a sample of "cherry juice" before me, taken from the custom house in San Francisco, containing 16.7 per cent of alcohol, or 33.4 per cent proof spirits, appraised at 21½ cents per gallon, on which was levied the tax of 20 per cent *ad valorem*, or a little more than four cents per gallon. Assuming that this might have been appraised, if containing the full limit of twenty per cent of alcohol, as high as thirty cents per gallon, then we should have the tax represented by six cents. Add this to the estimated cost of

the supposed mixture that we are considering, and we have eight cents for alcohol, five cents for fruit, colors and acid, six cents duty, and two and one half cents for transportation, or twenty-one and one-half cents cost at port of entry. Two gallons and a half of such a mixture would be equal in alcohol to a gallon of proof spirits, and would cost not quite fifty-four cents, while domestic alcohol used for the same compounding purposes would pay an internal revenue tax of ninety cents per gallon.

This material is mostly dry (free from sugar), and is used generally in stretching dry wines, twenty per cent of alcohol being equal to double the strength of ordinary dry wine, and capable of standing an addition of equal its volume in water. When so doubled the liquid costs (if in first hands) only about eleven cents per gallon. It is with this cheap material, while our vine growers are oppressed by taxation in the fortification of genuine sweet wines, that compounders of stretched or spurious wines may multiply the products of vineyards, retard our viticultural progress, rob us of our own markets, deceive and injure consumers, and steal from the public treasury. With such smuggled material, reduced with water, colored with aniline dyes, and dosed with salicylic acid, dealers in New Orleans and elsewhere can buy domestic wines at fifty cents per gallon, and retail them at thirty-six cents. With this also they can fortify, practically free from tax, imitation and bogus sweet wines in New York and elsewhere; and it is no wonder that protests from alleged wine makers are filed against the passage of a law which may tax such compounds, and that our genuine wine makers, who are taxed on their brandies, and who with their dry wines try in vain to penetrate a dishonest market with straight goods for the consumer, are becoming indignant at the heartless way in which their interests are neglected.

To illustrate that this evil is not imaginary, let me copy for your information a circular that has been sent out by a house in New York, addressed only to the trade, with the purpose of inducing merchants, for profit, to compound genuine wines with adulterated material. The original circular is now in the office of the *Alta California*.

NEW YORK, Jan. 23, 1886.
Mr. ———, Chicago.—DEAR SIR: We beg to inform you that we are manufacturing a line of wines, namely: Hock, Claret, Port, Sherry, Sweet Catawba, etc. We guarantee our goods to be free from chemicals, and to keep as well as natural wines. Our Hock, Riesling and Claret are 10 per cent spirit; our Port, Sherry and Sweet Catawba, 18 per cent. They take the place of California goods, and besides, they blend perfectly with imported or domestic wines. By putting five gallons of imported wine to one barrel of our goods, you have as good an article as the majority of trade calls for. We manufacture two grades of Claret, A and B. The A is composed principally of natural wine, and equals any Claret in the market. The B is used for blending with heavy dark Clarets. Our prices and prices are: Hock, 32½ cents a gallon; Riesling, 45 cents a gallon; B Claret, 32½ cents a gallon; A Claret, 40 cents a gallon; Port, Sherry and Sweet Catawba, 50 cents. The above prices are on five to twenty-five barrel lots. If you handle wines, will forward line of samples. Yours truly,
WINE COMPANY,
Manager.

The prices named above are no doubt subject to trade discount, and yield, even then, large profits.

The following official analysis of a sample of wine procured within the last two months from the general agent of a leading cheap wine house in New Orleans known to be dosing wines with "cherry juice," will also be interesting:

OFFICE OF STATE ANALYST,
BERKELEY, CALIFORNIA, April 7, 1886.
John H. Wheeler, Secretary State Board of Viticultural Commissioners. I have examined the sample of wine received from you, and find that it contains salicylic acid and is colored by an aniline dye.
W. B. RISING, State Analyst.

P. S.—This analysis shows that a very careful scrutiny needs to be exercised over the wines that are offered to the public; which is at the mercy of unscrupulous dealers, if supervision is not exercised over them.
W. B. R.

We think that in view of all the facts, which have been carefully presented, it is as easy for the Government to say that a compound of alcohol and fruit juice is not a fruit juice, but an alcoholic compound, taxable as such, as it is to say that an article shall pass the custom house under any name that merchants choose to give it. It would be just as easy to pass fortified Port wine under the name of fruit juice as to pass prune juice equally fortified.

Our vine growers have suffered every discouragement that American snobbery, duped by importers, pretending great excellence in very ordinary wines, could suggest; yet to-day not more than one-sixth of the wine consumption of our country is based on importation. Now we meet a more dangerous foe in the manufacture of ridiculously cheap spurious wines, and in our struggle against fraud and importation we find a loose construction of the tariff, which permits the entry of smuggled alcohol to aid our disreputable enemies. We are waiting patiently to hear from the Government the first word of encouragement for the honest side of our industry. Probably our own people have been to blame for not being importunate; they will not be to blame for this in future. We have rights which swindlers in trade must be taught to respect.

The substance of this question is thus presented to you because it bears directly upon the prospective revenues of the Internal Revenue Bureau, and upon the merits of the bill introduced by Representative Green of North Carolina, which has been considered by you, and which has been opposed principally by the men who operate with these fraudulent fruit juices.

Yours respectfully,

CHAS. A. WETMORE,
Chief Executive Viticultural Commissioner of California.

Our Grape Interests.

The grape interests of California are in a state of development, which ought to be a matter of pride to every American, who has the advancement of home industries at heart. California wines are now of a quality which augurs good for gradual and rapid climbing of the ladder of equality with the most advanced viticultural countries of the old world. It is pleasant to note the progress made. The national Grape Growers and Wine Makers' Convention, to be held on the 19th of May in Washington, will elicit the additional proof, not only of the relative high degree of perfection of products from the vineyards on the Pacific Coast, but our Atlantic States will also make a grand show. The move of furthering the interests of all grape growers in America, the initiative of which was given by Mr. Charles A. Wetmore, the California Viticultural Commissioner, was an excellent one. We learn that not only in our Eastern grape States, but also in California active life is infused. The State Vinicultural Society of California has been roused to exertion. That society, henceforth to be called the Grape Growers' and Wine Makers' Association, is organizing into a strong body of probably 4,000, and its object is to assist the State Commission in all matters affecting the grape industry.—*New York Shipping and Commercial List*.

IMPORTED FRUIT JUICES.

How They Are Used to Assist in the Smuggling of Alcohol and the Adulteration of Domestic Wines.

Necessity for a Change in the Tariff to Prevent Fraud on the Revenue and Imposition on the Public.

CUSTOM HOUSE, SAN FRANCISCO, CAL.
COLLECTOR'S OFFICE, April 13, 1886.

Chas. A. Wetmore, Esq.—SIR: The Collector has handed me your communication of the 6th inst., for reply.

The Tariff Act of March 3, 1883, provides, schedule G, for "fruit juice," 20 per cent *ad valorem*.

In schedule A, for "alcoholic compounds, not otherwise provided for, \$2.00 per gallon for the alcohol contained, and 25 per cent *ad valorem*."

In schedule H, for "all compounds or preparations, of which distilled spirits are a component part of chief value, not specially enumerated or provided for . . . a duty not less than that imposed upon distilled spirits."

In schedule A, for "coloring for brandy, fifty per cent."

The average alcoholic strength of the importations at this port is, say 16 per cent, or 32 degrees proof spirits. Foreign values range from 20 to 40 marks per 100 litres, exclusive of the cost of packages; the latter, from 3 to 5.50 marks per 100 litres. The appraisers determine values by the quality of the juice and its alcoholic strength; the volume of alcohol seeming to control the value. The revenue collected at this port during the past year will approximate \$4,000; gallons, say, 70,000; entered value about \$20,000.

The use of the imports is understood to be their mixture with the native wines, for adulteration, coloring and stretching by addition of water and spirits. If found, upon examination, to be "fruit juice" purely, and but sufficiently fortified with alcohol for its preservation, it is classified under schedule G as "fruit juice." If found to be a compound for coloring wines, it is classified under schedule A, by assimilation to "coloring for brandy," by virtue of section 2,499, Revised Statutes: *Provided*, The volume of alcohol contained would not relegate it either to schedule H, as a "compound of which distilled spirits are a component part of chief value, or to schedule A, as an 'alcoholic compound not otherwise provided for.'" The question for the appraiser to determine is, is the importation what is commercially known as "fruit juice," not exceeding in volume of alcohol the degree fixed by the department; if so, it is classified under schedule G, and is dutiable at 20 per cent *ad valorem*. You will find rulings of the Secretary of the Treasury in the synopsis of decisions Nos. 3672, July, 1878; 5326, August 1, 1882; 5398, September 18, 1882; 6423, June 26, 1884, and 7101, September 2, 1885, the latter to this port.

No. 5326 covered an importation at Cincinnati, 31 casks cherry juice. The appraiser held that it should be dutiable at the rate of \$2.00 per gallon, as a compound of which distilled spirits was chief value. The Department ruled that "fruit juice," being specially provided for, it was dutiable as such, irrespective of the amount of alcohol contained, if commercially known as

"fruit juice." A court decision is quoted in support of the ruling, which involved the proper classification of an importation of varnish. Under the late tariff law, varnishes were subject to duty according to value per gallon; under the present, 40 per cent *ad valorem*, unless a "spirit varnish," if the latter, 51 3/2 additional duty per gallon is exacted.

The principle is established, that an article specially named in the tariff must pay the rate provided, notwithstanding there may be other provisions that would cover it as well as in this case. Decision 5398 covered an importation which contained as high as 45 per cent of alcohol. This, the Department decided, was "not the fruit juice of commerce," it was held for duty at \$2.00 per gallon. The decision conflicted with No. 5326. There is, I believe, a fixed, or known, percentage of alcohol required to preserve fruit juices, but the tariff is silent upon the subject; it should be fixed, as in the case of still wines, by law.

Attempts have been frequently, but unsuccessfully made at this port, to enter compounds for coloring as "fruit juice." A late importation was so entered, but was classified as "coloring for brandy" by assimilation. An appeal was taken to the Department. Sample referred to New York for analysis, with the following result: "A concentrated solution of an artificial dye, naphthaline, containing pyroigneous acid, starchy and saccharine matter, free from alcohol, and contains solid extractive matter, 45 per cent, mineral matter, 8 per cent."

The rate should be changed for "fruit juices" to \$2.00 per proof gallon. Under-valuation would be checked, and the wine-producers protected. As requested, samples have been procured from the Appraiser's Department of late importations, exhibiting their value and the volume of alcohol found in each.

Appraiser Thompson has been carefully investigating the foreign market value of the importations; and their classifications, I am satisfied, is in accordance with law and instructions of the Department.

Very respectfully,

CHAS. C. LEAVITT,
Adjuster of Duties.

KILL IT.

There has been a bill introduced into Congress permitting the use of any and all kinds of spirits for use in fortifying wines free of tax. This is literally a Pandora's box, and has been justly described as a "bill to provide for unlimited stretching of wines, and to promote the industry of five-story brick vineyards." It should be crushed out by the indignant protest of every honest wine-maker. *New York Wine and Fruit Grower.*

Speaking of the Report of the Viticultural Work of the University of California, by Prof. E. W. Hilgard, the *New York Wine and Fruit Grower* says: "This is a very interesting and valuable contribution to our knowledge of the technical part of viticulture, notwithstanding some blemishes and weak, not to say erroneous, conclusions as to certain facts."

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

THE STATE VITICULTURAL SOCIETY.

The following extracts are from the Report of the proceedings of the meeting of the State Viticultural Society, held on March 20th. They are not embodied in the Report of the Fourth Annual State Viticultural Convention.

HON. WM. McPHERSON HILL.

I have been called upon rather unexpectedly this afternoon. Only a few moments ago I heard it was in contemplation to revive our old organization. I remember with a great deal of satisfaction the work of the Association, and I believe it ended unfortunately at the time that it did. I believe it was attended with great results to the wine makers who ought never to have allowed it to die. It ought to have been kept up in active work to this time, and co-operated with this Commission. Some organization, either the one that I am now speaking of or some other should be created at this time, to work with and assist the Commission in its labors. The old organization was established in 1870, and at that time numbered among its members some of the most active and prominent men engaged in viticulture. Many of them have been called to join the majority, but still there are left many efficient and earnest workers. It was to the great advantage of the wine interest; it had to take upon itself a very severe contest in the matter of the French treaty, which was about to be established, and had it not been for our Association, I do not believe at this time we would be in as favorable a condition as we are. It is my opinion that if it had not been for the efforts made by that Association, the Chateau treaty would have been enacted and in force to-day. There appeared to be the most singular luke-warmness all through the United States in regard to what that treaty was intended to do. It appeared to go by default unchallenged. We found our own Chamber of Commerce endorsing and recommending the treaty. Fortunately we had in the Chairman of that Society a gentleman who for years has been an earnest worker in the cause of viticulture. He was on the alert, and called the Association together, and it was to his efforts mainly that the result was produced which led to the defeat of Mr. Chateau. I allude to the worthy President of our Commission, Mr. Arpad Haraszthy. He, singly and alone, appeared to observe the very great objection to that treaty, and the disadvantage that would be wrought to our interests. I know that in our locality we were ignorant of what these parties were doing. No one appeared to call our attention to it until we were suddenly invited to a meeting by our worthy President. When we had met together, he impressed upon us what would be the result of the treaty. We called the Chamber of Commerce together, and we had a large and enthusiastic meeting. It was explained to that body what would be the result of that treaty, and we secured a reversal of the decision which they had previously reached, the endorsement of the objects of Mr. Chateau.

There was another great work which that Association was able to accomplish. It was that of increasing the rate of duty to 40 cents a gallon. The battle was made here in California, and was of great interest. I believe, Mr. President, if I recollect right, the duty before that was 20 per cent, and 15 per cent *ad valorem*, and the *ad valorem* was never paid. It was due to the efforts

of this society that the duty was raised to 40 cents a gallon, which raised the California wine interest to its present prosperous condition. There are many other things in connection with our wine interests that were accomplished by this society, but of which I cannot speak at this time, and to-day if it be re-organized, or if this meeting think proper to form a new organization there is, in that society, a nucleus, which can be brought out and revived, and in my opinion, it would be manifestly proper to use that material. We are thrown too much on to a few active men, and when a few are working the majority are apt to be negligent. This Commission has been at work in our interest, and there has been too much indifference on the part of wine growers themselves. In my opinion, it would be eminently proper to have an Association as assistant to this Commission, composed of as many wine growers as we can get to unite with us. An Association of that kind, not receiving any pay or any State aid, would have in certain directions more influence than a paid Commission. Furthermore, an association bears an influence which individuals do not.

Many of the officers of this Society, I presume, have been forgotten, and when I was informed to-day that I was the First Vice President, it was something that I had forgotten. I thought the society had died of starvation and gone out of existence, but when I found that the officers are living, and that Mr. Haraszthy, the President, is here, and that it only needs to be brought together to put it on a useful basis again, I think that it ought to be done. In any way that I can contribute towards its activity, and put it in a position where it would be of advantage to our Viticultural industry, I am prepared to do so. The worthy Treasurer of the Association is still here, and he can give his views as to the propriety of calling it again into active work. All the officers or members of this Association, whose names are still enrolled, who are members of my section of the State, will be very glad, I know, to hear that we are still a living Association, and to assist in its further useful work. We numbered I believe at one time, nearly 300 members, and although a number of them have gone to the last resting place, yet the majority of them are still engaged in the wine interest, and will gladly co-operate in any way to assist in the furtherance of our interest, either through this or any other Association.

PRESIDENT HARASZTHY.

The last meeting we held was about two and a half years ago, when there was a question came up on taxation, and I believe the present Mr. Green is the gentleman that had the tax put at 15 cents from 40. I have to thank Mr. Hill for the very kind manner in which he has spoken of me, but I only put the machinery in motion, and the work was done by other persons from San Diego clear up to Siskiyou County, and then we had the hearty co-operation of Mr. Wetmore and his experience. Without Mr. Wetmore, we should not have had the same result. I would like to have the credit put where it belongs. From 1870, there was always a disposition to tinker with our laws, and an attempt to put taxation on our wines in one way or another, and an attempt to reduce the import duties on wines, brandies and spirits. This Association was always ready to meet these changes. There were only about two annual meetings at stated periods, and it was then understood that the members should be called together whenever there was any dan-

ger or any requirement for their presence by the President, the meetings to be called at his option or at the request of private members.

Among other things, this Society effected a change in the laws of the United States, regarding all spirits distilled here, in the years 1874 and 1875, and this was one of the biggest works of the Society, and if it had not been for some of the men in that Society, backed up as they were by the help of the vine growers, that would never have been passed. At that time, there was a large crop in prospect with very little sale, and it was suggested that there should be an attempt made to take the tax off entirely. That was frowned down, but finally there was a disposition to give relief by having the bonded period extended. The first idea was five years, but the wine makers would take almost anything if they could distill their brandy and put it in bond and not pay the tax. Before that, they had to pay it in 35 days time. I think it was one of the grandest works that this society has brought to perfection. The bill was passed through the personal efforts of Mr. Sargent and Mr. Page. It was only acceded at first to the fruit growers, and before anywhere else to California. It was an extraordinary measure, and I don't see how it would have been passed, but it was, and gave us relief. We had the benefit of the system, but the whiskey people had to pay their tax down. That went on for years, and the system worked well, when it was subsequently extended to the whole distilling business of the United States. It has gone through exactly as it was planned here, with the exception of a few details. Gen. Naglee, whom we all lament, was a gentleman who was very active on the Committee that was appointed on that business, although he never afterwards took advantage of it, for he always paid his own tax at once. These things come to my memory as I look back a little, and through the papers that I have in my possession.

I think therefore, in the State Viticultural Society, you have a very good stem to graft on. The roots are there strong and vigorous. It has not died; there is no phylloxera at its roots. If you want to perfect this organization and bring it into a higher state of efficiency, you have the stock to work on. What you want to do is, all to work together, and not leave it entirely to the officers. The Commission have more than they can attend to, and there are many men in this business who would be valuable to assist the Commission in its work. We can have an organization of from four to five thousand wine growers, which would have a big influence on our politicians. Such a society is a good thing. It has been a good thing in the past, although it has not been called together except when it was needed. Anybody who is making his living in the wine business or not, whether he is working in a wine cellar, a grower of wine or a distiller of brandy, is eligible to membership.

MR. CHARLES KOHLER.

Mr. President, the Viticultural Commission has worked together with the Viticultural Society. For general information, the official body is good, but it wants more support. Great results can be shown by going over vineyards from Siskiyou down to San Diego, and noting the varieties of vines that are being grown on information that comes from the viticultural Commission. All that the State society or Mr. Haraszthy, your President, or I, as humble member

could do, was to look out for danger, and whenever there was danger we were dormant but not asleep. Upon the signal of danger we came out. One of those times of danger was the Chateau treaty of which we accomplished the defeat. We got our Chamber of Commerce to take back the resolutions they had passed, and go hand in hand with us. The next thing that arose was, that the wine maker should pay tax on his brandy as soon as it was distilled. We thought it was a hardship, and we went to Washington and got the law amended so that brandy should be put in bond for three years without the payment of the tax. Afterwards the whiskey men got the extension for whiskey, but we, as fruit growers of California, got that concession from the Government when they had not received any such favor. Since then we have received little legislative enactments. When necessary, Mr. Haraszthy will call the Society together, and perhaps not more than half a dozen of us would meet and do what we considered necessary, but if there was no threatened danger, there were no meetings. And to speak of this Society as defunct or of these men who have done so much, and put their hands in their pockets and paid out so much money, as indolent and neglectful, I don't think is right. Not that I want anything, but for my colleagues and Mr. Haraszthy, I want an acknowledgment of what they have done.

MR. WETMORE.

I assume gentlemen that on this floor, of course, and through this society, every individual member will express, if necessary, his ideas as to the advisability of any legislation that is proposed. All measures that are intended to benefit the public in one common interest where there is a great industry behind it, should be carefully considered in committee before they are debated on the floor. I do not suppose that anybody can do anything in the way of legislation without having it partially misunderstood somewhere. The bills that have been introduced will of course be published, and I hope that every one will criticize them, and if anything is noted in them that is at all serious, that we may be notified of it as quickly as possible—any mistake that we have seemingly overlooked. We have undertaken to discuss these matters with men who are conversant with the subject and have had experience, and so far we have satisfied all, and aim to satisfy them before taking any steps. We first want a public sentiment everywhere. We want influence in Congress. Every man will know whether he has any means of attaining the latter end. Many of the members from other parts of the United States will be impressed with this bill or not, as it is presented to them. The most potent influence that our people here can wield is, by communicating with members of Congress from other States through their friends if they have any in those States, assuring them that the bill is all right, and that it is what we want and need. The people in the East may be apt to think that we want to get some bill passed to obtain some particular advantage, that is a mere fanciful idea, and not of real utility. Such a feeling as that can be overcome by writing to your friends, and stating the object and necessity of such a bill. Mr. McPherson Hill, for instance, knows somebody in some other State, and he writes to him, "we want you to help the bill all you can." That man will then be induced to do what he can, because Mr. McPherson Hill wishes him to do so. The kind of an-

tagonists we are fighting always seek the lobby. We want to show Congressmen up against that lobby, that whatever work it may do, there is a popular sentiment that ought to be listened to.

MR. MCPHERSON HILL.

After we made our rules and expressed our sentiments, let us work together. Let us start this new organization in that spirit. It has in the past accomplished a great deal, and I hope in the future it will accomplish much more. Five or six years ago, we included some three or four hundred members. Since that time, viticulture has become an immense interest in this State. There is no reason why we should not take in as many thousands as we had before hundreds, and accomplish great results. We are a grand army that can be of great assistance to the Commission. The Commission occupy the outposts on the frontier, and they notify us when there is any danger likely to affect our interests. If there is any danger, we will come to their support like a mighty army. As a combined force, we can go before Congress or our local legislature and exert a power, which as individuals we could not. This society can meet and pass resolutions, which resolutions, going before Congress, would carry great weight that could not be secured for it by the action of any individual. The idea thrown out by Mr. Wetmore, that we should write to our friends in different parts of the United States, and urge the passage of the measures now before Congress is a good one. One man may have friends in Tennessee, another in Georgia, and their attention can be called to it and our necessity explained to them, and thus each one may contribute to the great result. And collectively, the action of such an organization as we have started to-day, will have great weight directly in the Halls of Congress if the society continues in the work already started. It will accomplish great results.

TANNAT.

Since 1867 I had the pleasant acquaintance with the wine of Madiran, the product of the Tannat grape. My medium of red wine at my meals I always took systematically, drowned in water. When, in my frequent visits to Paris I enjoyed the hospitality of my friend Monsieur Stanislas Baron, it was that wine, which, with its full vinosity and splendid color, permitted of a liberal admixture of the thirst quenching element without feeling the nudity and crudeness of the latter. With the treble addition of water the Madiran wine remains wine, a light, most agreeable tasting wine with the astringent matter still richly penetrating. I have with double delight passed through the Madiran district in the society of my above named friend, for I did not forget that nice wine made from the Tannat grape there, enjoyed in Paris. When advising Mr. Wetmore some six years ago to request Mr. Baron to send him Tannat cuttings for propagating in California, I knew it would be a valuable acquisition. But I did not foresee the brilliant success that we have achieved with that vine. In the report on samples at the Convention of 1884, about those of Tannat of Glen Ellen and Oakville the opinion is expressed, that the variety merits the greatest attention, as the samples show the deepest color, combined with harmonious astringency and unexceptionable taste; that it is useful and character giving in blends with inferior and with higher class varieties. It has proved

prosperous and productive of a high quality wine in California. In the conclusions of that report the advice of utilizing the Tannat in any of the four grades of red wines, which seem to be the outcome of our production, is given.

For the share I had in that advice, based upon the persuasion gained from few, but successful samples, I could confirm this experience and the advice from the examination of the samples of the 1885 vintage which by the unanimous verdict of the many gentlemen who tasted them during the Convention week, from the 15th to 20th of March, 1886, are considered admirable wines, and the vine yielding them worth to occupy a favored place in the vineyard. It is one of the varieties of preference, which as to quantity and quality seems to be one of the really acceptable ones. The most practical demonstration of the value of the Tannat grape, in the estimation of people who know what they are doing, is the price Mr. A. G. Chanché offers for 1886 grapes of that variety, as published in the MERCHANT of April 23rd, viz., \$40 per ton. This type of course is influenced by the relative scarcity as yet of such grapes, but it shows the applicableness of them and contrasts considerably against the price of Charbono and Malvasia, \$15 and \$10, while the Mission grape is not wanted at all by the gentleman who is valuing the raw material for his 1886 wines judiciously. The experience gained, at the last two Conventions, with regard to the Tannat have influenced several of our most progressive vintagers to stock their vineyards with that variety. This is a practical determination, which they will never regret.

Messrs. Mas and Pulliat say in their *Fig-noble* on the subject of the Tannat vine: "It is one of the most preferred varieties of Madiran, near Tarbes, the most renowned cru of the Hautes Pyrenées, where it is associated with the Mansene, the Gros Mansene and the Bonchuy."

My impression is that with the cuttings Mr. Wetmore had received from Madiran and which it seems have had an admixture of those from one or two other varieties, we have hit upon a real success. May we see in the near future where we can obtain a cru of best renown from the propagations of the Tannat in California. I am glad to add that among the samples of wines of 6 varieties from Mr. Crabb's vineyard, the product of what was propagated by that excellent and careful viticulturist from a couple of cuttings obtained from Mr. Krug's importation two years ago, several show a high degree of success. These are the *Spanna* of superior quality, and grand color, the *Refosco*, the *Bechin*, also really a high grade deep tinted red variety, the *Blue Portuguese*, and the nice red wine of light construction and pleasant taste from *Valdepenas Tinto* variety. The sixth is *Lagrein*, a coloring wine of high virtues. Something extraordinarily good will be got from one or the other of these six varieties. And let us not forget the precious Italian *Barbera*, of which a few bunches in 1884 from Mr. J. T. Doyle's vineyard gave us an ephemeral glance at its great beauty. The successors of those firstlings of 1884 were not forthcoming from the same vineyard last vintage. I, for my part, regret this greatly, for I believe that it will be for us as valuable as it is for the Asti region, and it may be a worthy companion to the *Medoc* varieties, which, in favored locations of ours, are called to bring us glory.

F. POHNDOFF.

Dr. Bersch, of Vienna, on Turbid Young Red Wines.

Difficulties in red wines, after the turbulent fermentation has been accomplished, are frequent. Two causes bring about the irregularities of the last fermentation. Lees originate chiefly from the surface of the grapes. Red wines, having fermented on skins, necessarily carry with them a considerable amount of lees, which cause a rapid fermentation. Second, the large proportion of tannin extracted from the seeds causes a great quantity of albuminous matter to become insoluble. A white must is always less rich in tannin, and therefore keeps albuminous matter soluble; this has to be dissolved by frequent rackings, exposing the wine to the air. Although a young red wine may appear bright, it will go on precipitating albuminous matter together with some coloring matter, gradually becoming insoluble. Racking young red wine, which, with all its apparent brightness, holds and deposits the matters spoken of, together with carbonic acid gas, has the salutary effect of rousing the latter from the lower strata of the wine and diffusing it in the mass of the wine. This is necessarily rendering the wine turbid. Unfavorable weather with undue pressure of air will make the wine still more troubled. This effect is harmless and the wine will gradually clear itself, as the pressure of the air with more favorable weather will again precipitate the matter in solution. When the wine again assumes a good clearness, no time should be lost in freeing it over the precipitate by a new and careful racking.

Together with the spores of fermentation the surface of the grapes hold spores of mould which arrive in the must. The latter can live only when brought in contact with air. Split spores, which likewise are brought into the must from the skins, can live without direct air-admission. The size of the split spores is infinitely small, and thus can not be distinguished in the clear wine. Most of these spores will settle in the precipitates. But the presence of ever so small a proportion of them in the clear wine will cause the most disastrous effect. These spores continue to live and increase, and will bring about the effect that the wine gradually becomes unfit to be consumed. Grapes on which rain has fallen just previous to gathering and such which have been split or have rotted in consequence of the rain, have a large amount of split spores. The effect of this is the resistance of the wine to clarification, and its growing turbidness.

A high temperature is particularly favorable to the development of split germs. In order to find out how a wine infested with them will behave in the next few months, samples should be placed in a temperature of about 60 to 62 degrees F. These samples should be in white bottles, corked, and not be exposed to trepidations. In that temperature, the split germs will rapidly grow, the wine become very turbid, assuming a bluish tint, and its taste will become more unpleasant if it is really full of the germs, which will bring the wine to a stage of disease called bitterness. Microscopic observations of the wine will more easily show its condition. If turbid, but not infected by split germs, the microscope will show only the red liquid with some ferment germs swimming in the same. But in the contrary case and infested fully with split germs, the decay of the wine is evident. No treatment will free it from the dangerous element; racking, sulphuring, filtering or clarifying will be useless. To render it fit for rapid consumption, heating it for a moment up to 130 degrees F., may kill the split germs present. This remedy, if applied at the earliest stage, will prevent decay of the wine, which, under the most scrupulous care may be saved effectually, but it is in every case a defective wine or a very ordinary one, and not one which should be kept for any length of time.



ISSUED FORTNIGHTLY ON FRIDAY MORNING BY

E. C. HUGHES & Co., - - Proprietors.

CHARLES R. BUCKLAND, - - Editor.

Office, 511 Sansome Street. Postoffice Box, 2306

TERMS PAYABLE IN ADVANCE.

One copy one year \$3.00

One copy six months 1.75

Including city delivery, United States, or Canadian Postage.

Entered at the Postoffice as second class matter.

AGENTS.

ANAHEIM MAX NEBELUNG
 CLYDEDALE, Sonoma Co. J. A. CARRIE
 DIXON, Solano Co. A. B. STORY
 DUNCAN'S MILLS, Sonoma Co. F. SLOAN
 FRESNO H. C. WARNER
 GEYSERVILLE, Sonoma Co. D. LEPTO
 HEALINGSBURG, Sonoma Co. A. BALTZELL
 LIVERMORE, Alameda Co. GEO. BECK
 MAXWELL, Colusa Co. M. NATHAN
 SANTA ANA R. F. CHITTON
 SAN JOSE, Santa Clara Co. E. B. LEWIS
 SANTA ROSA C. A. WRIGHT
 STOCKTON WM. H. ROBINSON
 WINNERS, Sonoma Co. LINDSAY & WELCH
 WOODLAND, Yolo Co. E. BERG
 HONOLULU J. M. OAT, Jr. & Co

FRIDAY MAY 21, 1886

Recognition.

Our friends in the Fresno Viticultural and Horticultural Association recognize the value of a journal like the MERCHANT guarding and advancing their interests, and give effect to their good wishes in a very practical way, as will be seen by the following resolution:

Official.

FRESNO, CAL., April 5, 1886.

Proprietor S. F. MERCHANT. — Dear Sir: Below is a copy of the minutes of the last meeting of the Fresno Viticultural and Horticultural Society that is of interest to yourself.

Resolved: That this Association recognize the SAN FRANCISCO MERCHANT as one of the best organs of the Viticultural and Horticultural interests in the State, an exponent of their views and able advocate of their interests, and, moreover, as a paper which has taken more than ordinary interest in the prosperity of Fresno county. We agree to give the publisher our editorial support while that journal pursues the course for which it has hitherto been distinguished.

Moreover, we suggest that manufacturers and dealers in agricultural implements and other merchandise who wish to call our attention to their goods, add us and other viticulturists in maintaining the SAN FRANCISCO MERCHANT on a sound footing, by giving it a large share of their advertising patronage.

Be it further resolved that the Fresno Viticultural and Horticultural Society tender its thanks to the SAN FRANCISCO MERCHANT for past favors.

C. F. RIGGS, SECRETARY.

WANTED.

WANTED BY JULY FIRST, A THOROUGHLY competent wine maker, conversant with all branches, and must be well recommended. Advertisers will pay a good salary. Six months or yearly engagement as arranged. Permanent position to first class man. Apply to Secretary Fruitvale Wine and Fruit Co., P. O. Box 346, Fresno, Cal.

Bees and Grapes.

The American Bee Journal says "that a Report of Experiments by Mr. N. W. McLain, at the United States Agricultural Station, at Aurora, Ills., made at the Department at Washington, and published in the Official Reports of the United States Entomologist, show most conclusively that the bees never injure sound grapes, even when on the verge of starvation. This adds another proof by carefully conducted and thoroughly guarded experiments under the fostering care of the United States Government. California grape and raisin growers, who are now prosecuting a bee-keeper there for injury said to be done to their grapes should make a note of this and stop their jealous and foolish persecution of bee-keepers."

THE SPURIOUS WINES BILL.

Shortly before leaving for the East, Mr. Wetmore asked Mrs. Warfield, of Glen Ellen, to write to any friends in the Senate or Assembly, requesting their support of the bills before Congress. Amongst others written to was Senator Vest of Missouri, who, in replying, said: "It will give me very great pleasure to see Mr. Carlisle and Mr. Breckenridge on behalf of the bill to which you refer in your letter. I know Colonel Green very well, and sincerely sympathize with his and your interests in the direction of encouraging the culture of pure American wines, and the prevention of the manufacture and sale of spurious compounds, which are now put on the market. You may rest assured that I will do every thing in my power to meet your wishes."

This is very satisfactory, as Senator Vest possesses great influence amongst the Southern Senators.

WINES AT WASHINGTON.

(Special dispatch to the MERCHANT.)

WASHINGTON, D. C., May 19th.

The National Viticultural Convention attracts great interest. Samples have been exhibited in great numbers. Nearly all the leading Eastern Champagne producers are well represented by special representatives who will take charge of sampling their exhibits to-night. None of the California houses, represented in New York, have yet sent representatives except the firm of Wm. T. Coleman & Co. California wines are to be sampled to-morrow evening, when the attendance promises to be very large and influential. Admiral Porter and other Navy officers, with ladies, will attend this evening. The management is suffering seriously from want of funds, many exhibitors forgetting that the display and handling of their samples requires considerable expenditures. The California State Viticultural Association is forgetting that an estimate of expenses was given in advance and are forwarding very little pecuniary assistance but leave their representatives here in a begging condition, forced, to prevent failure, to draw upon their own private resources. Such neglect of great opportunities is unpardonable and causes those in the front to feel as though this would be the last attempt they would make to work in a public cause.

AN ENFORCED AUCTION.

Sale of Vines From New Orleans by the Authorities.

There is a prospect of a suit in the Federal courts over the sending of twenty-five bales of grapevines from New Orleans to this city, consigned to a San Francisco merchant. The goods arrived during the latter part of April, and were stored in the Oriental Warehouse. The consignee, however, refused to take the vines, as he declared that they were not what he had ordered, nor were they in good condition. Under this refusal, Collector Hager ordered the auction of the vines, as they were perishable merchandise and there was no prospect of their being taken out of the warehouse. It is said that the sale brought little more than nothing. The consignors, however, it is stated, intend to bring suit for the full amount agreed on.—San Francisco Chronicle.

Orange Wine.

The Riverside Press and Horticulturalist says:—Mr. Moreau de Saint Mery's receipt for making orange wine is as follows: Boil the peels of forty oranges in ten quarts of water until the water tastes strongly of the peels. Add twelve quarts of orange juice and thirty-six quarts of sugar. When cold pour into a barrel; leave the bung out during fermentation, which lasts forty days, and keep the barrel bung-full; then close the barrel and let the wine settle for two months. Two days before bottling add a small handful of orange flowers to give fragrance to the wine. Orange wine improves with age and acquires the taste of the Malvaria of Madeira. It bears transportation well. It competes with Curacao and other alcoholic, aromatic beverages of Southern France and Italy. Delicious white and pink orange cordials are made in the Greek Island of Cephalonia.

WASHINGTON, May 19.—Increased interest was manifested to-day in the National Viticultural Convention. During the afternoon addresses were made on the varieties of vines which have been grown with success in Virginia, and on the methods for suppressing vine diseases. The following resolutions were unanimously adopted:

WHEREAS, The development of grape culture in the United States raises serious questions concerning the future of this important industry, in which is invested already \$116,000,000, an amount of value worthy of the Government's care; and whereas, the effect of the competition of adulterated and spurious wines with the pure product of the vineyard tends greatly to the injury of morality and the health of the consuming public; and such competition proves ruinous to viticulture, and if permitted will result in its demoralization; therefore, be it.

Resolved, That this association memorialize Congress to secure a section of viticulture under the direction of the Department of Agriculture, and if established it shall be granted such appropriation as will enable it to conduct all the experiments so necessary in the improvement of vineyard products by pruning and culture, the use of remedial measures as are thought to promise advantage for benefit, and to afford all the means for the development of viticulture.

Resolved, That the bill introduced by Hon. Wharton J. Greene of North Carolina, defining pure wine and providing means for its protection receives the unanimous approval of this body, and if enacted it will protect this growing industry from the evils which threaten its destruction and check the work of men who, for private gain, are engaged in defrauding the public and in bringing discredit among American wines.

A committee was appointed to memorialize Congress on the subject of the creation of a section of viticulture in the proposed new Department of Agriculture. The President will receive the members of the convention in a body to-morrow afternoon. The main hall of Masonic Temple was filled to-night with invited guests, who examined the various varieties of wines made in the States east of the Rocky mountains. To-morrow evening the sampling will be devoted to California wines.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

A Valuable Olive.

In the last number of the periodical edited in Spain, called *Los Vinos y los Aceites*, which in translation means "The Wines and the Oils," we read the following correspondence between Mr. F. Pohndorff and Don Jose de Hidalgo Tablada, the best Spanish authority on horticultural matters generally. As the subject concerns a variety of olive found in California, we copy the whole translated.

D. Jose de Hidalgo Tablada: DEAR SIR—My friend, Dr. Gustav Eisen of Fresno, California, has found among the variety of olives called the Mission olive and which you, from the samples I sent you, classified with the name Cornicabra, another variety, the productiveness of which is much greater and much earlier, as it matures in October, and which we would be pleased to have you examine and classify from the fruit and leaves herewith remitted. Yours truly,

FREDRIC POUNDORFF.

Answer:—As to the above question, we have this to say: The olives received correspond to the variety called *olea Europia regalis*, the common name of which is *acettrena gordal*. No doubt this tree, as well as the Mission or Cornicabra, was brought to that country by the Spanish missionaries at the time the same was subject to Spain.

J. DE HIDALGO TABLADA.

Remarks:—Referring to Mr. Pohndorff's pamphlet on olive growing, we find the following description under the head of "Gordal": "A tall tree—possibly the tallest of all olive trees and growing quickly. Its branches are lustrous and strong, and growing obliquely. Insects seldom attack this tree which forms warts where attacked that close rapidly. The same as any wound caused by pruning, it heals at once. The present Gordal measures 23 metres in height and 18 inches in diameter. Its color when ripe is greyish black, weight 1.2 grains—stone, 5-42 part. It is one of the best Spanish pickling varieties and yields also good oil. It resists cold like the late maturing Cornicabra varieties, and altogether it is one of the most acceptable ones. Repeated and heavy trimming is a means of keeping this tree in perfect order." Unhappily the Gordal is very difficult to propagate from cuttings.—Fresno Republican.

Crop Prospects.

Gilroy Valley Record

The reports for California cover the entire State, and on the whole show that the entire yield of grain and fruit will be abundant; the excessive rains have diminished the prospects some, though the yield will be above the average. From all parts of the State the reports are that hay will be exceedingly abundant. Peaches generally will be a failure; also apricots, on account of "curl leaf." The vineyards are all reported to be in a most promising condition, and the tonnage will be greatly above the average. One observer in Sonoma county reports: "It would appear that irrigation was a benefit to growing vines, and that the April rains would largely increase the tonnage of grapes this season." In portions of Santa Clara county the codling moth are abundant.

The Santa Rosa Republican says: The grape vines are doing finely. No frost to hurt the vines, and the crop will surely be abundant.

PROGRESS OF THE VITICULTURAL CONVENTION.

(N. Y. Wine and Fruit Grower.)

PROGRAMME SO FAR AS READY.

To the Grape-growers of the United States:—We are now able to announce with definiteness that the first National Viticultural Convention held in the United States, the call for which was issued in February last, will be opened on Tuesday, the 18th of May, in the Agricultural Department Buildings, in Washington, beginning at 10 o'clock A. M.

ORGANIZATION.

The first thing in the order of exercises will be to effect a permanent organization by the appointment of a chairman pro tem., and a committee on organization. It is desirable that the official make up of the organization should be composed of a practical working force, and should therefore be selected from the active, progressive men prominently connected with viticulture in all the grape-growing districts of the United States. The work to be accomplished is an important one, and should be entrusted to able hands, and all should try to act in a broad, national spirit, and to avoid sectional and local jealousies.

REPORTS OF COMMITTEES.

After permanent organization, the reports of Committees on Rules and Order of Exercises will be in order. These reports will simplify the work of the Convention, and arrange events in proper and consecutive order.

ADDRESSES AND PAPERS.

The first address delivered will be by the Hon. Norman J. Colman, Commissioner of Agriculture, subject: "Viticulture as a National Industry." This address will be followed by one from Prof. C. V. Riley, subject: "The History of *Phylloxera Vastatrix*, and its Influence on American Viticulture." Other papers and addresses have been promised, as follows: "Viticulture as based on the Development of our Native Grapes through Cultivation, Crossing and Hybridization," by George W. Campbell of Ohio. Paper entitled "American Grapes," showing importance of botanical and other scientific knowledge to the viticulturist, by T. V. Munson of Texas. Paper entitled "How to Multiply New Varieties and bring them to early fruiting," by Hon. Samuel Miller of Missouri. Paper entitled "Experiments in Viticulture," by Col. Alexander W. Pearson of New Jersey. Paper entitled "Grape-growing and Wine-making in Virginia," by Prof. Joseph A. Peck of Virginia. Paper entitled "The Grapes of the Future," by John T. Lovett, of New Jersey. "Grapes and Grape Must," the pure unfermented juice of the grape as a food and as a medicine, by George E. Dewey of New York. Other addresses and papers have been promised, but the titles are not yet known to the Committee. The closing address will be made by Mr. Charles A. Wetmore of California.

THE EXPOSITION.

A large hall adjoining the room in which the Convention will be held, will be used for the exposition of exhibits. This will be under the joint management of Mr. Christopher Xander of Washington, local delegate, representing the Eastern State exhibitors, and Mr. F. Pohndorff, California delegate, representing the California exhibitors.

The Committee are happy to state that 151 different lots of samples are already on the way from California, which, it is stated,

are only the advance-guard of what is to come. Messrs. Wm. T. Coleman & Co. and others will make a fine exhibit of raisins, canned goods, etc. Reports from the various grape-growing districts in the East also indicate a very full display of Eastern vineyard products.

THE SWEET WINE BILL.

A More Favorable Outlook for its Passage.

WASHINGTON, May 11.—The Sweet Wine bill, as it has been finally prepared, subject to a few known and proper amendments, was presented to the Ways and Means Committee by Representative Morrow one week ago, a copy of the same being forwarded to the Commissioner of Internal Revenue. The original draft, which was made by the representative of the California State Commission, had been revised by the delegation, Representative McKenna taking a prominent part in the work, and by officers of the internal revenue. There remains yet an open question as to the period within which the privilege of free wine spirits shall be exercised, owing to the delay of Eastern wine-makers in representing their claims.

Mr. Wetmore was in New York, in consultation with several of the leading producers of the East, last week. It is presumed now that all differences of opinion between the genuine wine manufacturers have been harmonized, and that action will be taken by the committee. In the mean while effort is being made to secure harmonious effort in behalf of the Green bill taxing spurious wines.

Mr. Wilson, the agent of the Sweet Wine Committee of California, Mr. Wetmore and the California delegation appear to be working in full accord with each other, and the prospects of success are brighter than heretofore. The supposed opposition of grain distillers has vanished, at least for the present. The latest reports indicate that the Sweet Wine bill was reported upon by the Commission on Internal Revenue, last week, but has been held for further consideration by the Secretary of the Treasury. This week it has been reviewed by the chiefs of the divisions on mercantile, marine and customs, and the investigation was to have been concluded to-day. Mr. Wetmore and Mr. Wilson called on the Secretary of the Treasury, requesting that if any adverse report was contemplated a full hearing before him might be granted. It is their opinion, however, that the report will be favorable. A report was shown them to-day from a special agent of the Treasury Department in New York, sustaining the position taken by the California State Commission, that the so-called imported fruit-juice should be classed as wines, or alcoholic compounds, for purposes of taxation. The department is still investigating this branch of the subject, which has been brought to public attention most forcibly by recent correspondence with the Internal Revenue office.

WASHINGTON, May 13.—Copies of the correspondence of the Commissioner on Internal Revenue and of the Secretary of the Treasury, addressed to the Committee on Ways and Means in relation to the Sweet Wine bill, were shown to-day by order of the Secretary of the Treasury to the representatives of the California wine interests. Owing to the difficulty in obtaining access to these papers it had been supposed that they contained suggestions adverse to the bill, but it is known positively that the

Commissioner approves, without suggestion of amendment, the provisions of the bill as it now stands so far as all safeguards are concerned to protect the public revenues. The only question raised by him relates to the policy of such a measure from a strictly revenue standpoint. This is considered, therefore, as a practical indorsement of the bill, because it rests with Congress only to determine what taxes shall be abolished.

In transmitting the report of the Commissioner, Acting Secretary Fairchild says that he has examined the provisions relating to the use of free wines or spirits in fortifying wines, and finds no reasons to object to the same. The situation is therefore encouraging for the supporters of the bill, as they have only to address themselves to the main question, which is the necessity of removing the tax on fortified wines, in order that the industry may expand to supply foreign markets and may be enabled to fairly compete with foreign wines in domestic markets. A brief is being printed to-day by Mr. Wetmore to be filed with the committee.

WASHINGTON, May 18.—The National Viticultural Association assembled to-day. The Commissioner of Agriculture delivered the opening address. He said in part: "It was not so much for consideration of the importance of the grape in connection with its dietary and domestic uses, as in the manufacture of pure American wines and the protection of them from adulterated compounds, that the national convention was called. We want to furnish the nation with the cheapest, most wholesome and beneficial beverage—pure wine from the grape. We want to give the American people American wine. Part at least of the imported wines are inferior in purity and quality to our California products. It is certain that California products have been sought in foreign markets and almost equally certain that some have returned either unmixed, or manufactured under a foreign name. It is evident that time and use will educate the taste for native wines, and that the importation will decline and exportation advance by rapid strides, keeping at home the money paid for foreign vintages, which has amounted to over \$7,000,000 per annum in the last five years, and bringing a still larger annual revenue from the export trade."

The speaker at some length described the methods of manufacture and the component parts of adulterated wines, and concluded as follows: "The brandies of California are pure, and infinitely superior to the detestable concoctions that bear foreign brands and are marked with prices that are at once a means of deception and a source of fraudulent income. It is the statement of M. Girardi, Chief of the Municipal Laboratory of Paris, that forty years ago seven-eighths of the brandy manufactured was pure, but that of 50,000,000 gallons now produced annually not 1 per cent of it is from grapes—grain, beets, potatoes, etc., being the principal sources. In view of this statement—this fact, as it is recognized to be—what folly it is to discriminate against native production and endanger public health to gratify the sentimental recollection of the virtues of primitive cognac."

The Commissioner also spoke of the rapid growth of the raisin industry of California and predicted for it a most successful future.

The following officers were elected: President, Charles A. Wetmore of California; Secretary, B. F. Clayton of Florida; Members of the Viticultural Council—J. S. Newman of Alabama, L. J. Rose and H. W.

Crabb of California, D. Cook of Missouri, A. W. Pearson of New Jersey, M. E. Dewey, D. Bander and J. W. Davis of New York, Hon. W. J. Green of North Carolina, J. J. Lucas of South Carolina, G. W. Campbell of Ohio, L. V. Munson of Texas, M. O. Randall of Tennessee, H. L. Lyman of Virginia, the President and Secretary being ex-officio members of the council.

Suckering Muscat Vines.

Many of our best raisin men are this year not going to sucker the muscat, but allow all the shoots to grow, even those from the roots of the vine. The object is to counteract the effects of or possibly even to prevent the black-knot usual in any wet and warm seasons. In some countries this leaving of the suckers has the effect of diminishing the crop of grapes, as the suckers generally do bear. Here, however, it is different. Even suckers from the root have here grapes which are just as good and just as perfect as those from top branches. The old talk of fruit buds on the vine is at least here pure nonsense. All buds are here fruit buds, at least on old vines. Leaving the black-knot out of consideration it is also best to occasionally raise some suckers, from which a new crown may at any time be formed.—*Fresno Republican*.

Doctors in Horticulture.

(Coleman's Rural World.)

Physicians have done more for horticulture than any other class of people outside of those who make horticulture the leading business of their lives. No other profession has so warmly espoused this cause, and no class has labored harder or contributed more freely to give it a foothold. In all the great centers, where not so many years ago the industry came to the surface in such an humble way, its growth was largely hastened by the interest manifested by the doctors, and whether in the stirring debates and discussions in the State or local horticultural society meeting, or whether in the more practical labor of giving us large orchards or broad berry fields and directing their management, many of the most prominent and influential men were of the medical profession.

Indeed, a number of these gentlemen, yielding to their love for the business, to which might be added prospective profits, abandoned their profession that they might devote all their energies and time to it.

As a result we find the fruit kings of the West and South largely composed of doctors, while much of the pioneer work in furnishing greenhouses, nurseries, etc., must also be placed to their credit. It might also be added here that many failures followed their efforts, for they lacked that important essential to success, experience; but their investments and experience formed a safer basis for others to proceed on. In fact some of them found themselves, after years of hard work, not only bankrupt financially, as they had to put both in jeopardy in embarking in the business. However, the great majority made a success of their calling, a fact which illuminated the way for others traveling in the same direction.

In grape growing and winemaking they have also been conspicuous. They have filled with honor and ability many of the important positions to which only eminent gentlemen in the horticultural world are eligible. They were in a position to realize how important to the health and happiness of the general community a liberal supply of fruits were, and the advantages resulting from a free consumption of them; and in promoting and advocating the cultivation of fruits and flowers, the adornment of home, etc., they have become real benefactors of their race.

PROHIBITION.

[From the Report of the Fourth Annual State Viticultural Convention.]

MR. WETMORE.

The question of prohibition we ought to think about, and I would like to raise it before you to-night, so that at the meeting tomorrow we may have some ideas in discussing it. Upon this subject, I may repeat some things that I said on Monday night. Prohibition doctrines are prevailing in many States, and in some places they are being accepted, not because there is any general public sympathy, but because there is no opposition, or if there is opposition, it comes from quarters that do not command public respect. The consumers, whose liberties are being interfered with, are doing nothing. If there is a faint opposition, it is left with the retailers. The producers are doing nothing, so that practically they are running their battles by apathy. Of course, we cannot expect Congress to do much, if we are quiet, we must interest every consumer, and make him know that he has an interest with the general public.

It will be a part of our duty in the future to make the public know that they have an interest in these things. I have taken great pains, so far as the opportunities have presented, to enquire how these prohibition laws worked in the several States. I found them without a single exception. In talking to gentlemen of high character whose words would certainly be received anywhere, that in one of these States the actual consumption of villainous spirits was greater than it was before they passed this prohibition law. The kind of excitement it gives a man who is hunting for something he cannot get lawfully, and the pride he takes in breaking the law he thinks encourages on his liberty, encourages him in accomplishing his object. I recollect one Sunday afternoon in Washington, going down to the Villard Hotel and passing into the saloon, and there I found three or four officers of the Government and two or three Senators taking a drink. That in a place where the prohibition law is supposed to be enforced. The public has no respect for laws that are in force, where the interests and dignity of personal liberty are violated. The immediate result is contempt for the law, contempt for the law makers and contempt for those who execute the law, and ultimately, more or less corruption of the petty officers who have the enforcement of the law in their hands. In Maine, whiskey is used on every hand. Beer is a favorite drink and is freely passed out for, notwithstanding its bulk, it can be used up quickly. One gentleman described a scene where 8 barrels were thrown from a train. A Government officer was there trying to seize it, and he was in the ridiculous position of sitting astride of two barrels, while the others were being carried away. So far as the character of the spirits is concerned, it is as villainous as it could be, and the consumer has no right to explain, because it is against the law. They are sold under circumstances which prevent an inspection of the character of the compound. The statement I received from a prominent man was, that the chief business of the Express Companies consisted in carrying packages of spirits all over the country. This gentleman's own house was supplied with all the wine he wanted, receiving it from New York or Boston or other cities by express all the time. The rich man can take care and see that he gets a good article, but the poor man is the sufferer, and gets the rot

gut. The same gentleman told me that he could count more drunken men in a day in Portland, passing before the banking house in which he was engaged than before the enforcement of these laws. I heard exactly the same thing in Iowa and Kansas. The evil effect on the country and the demoralizing effect on the people is undeniable.

There is, however, another class of local option laws that are being passed in some places lately, recently in Georgia and Vermont. The way they succeeded in passing these laws is to excite religious impulse, the same as our darkey friends in the churches. They are trying to get the law through in Washington, and the gentleman who was at the head of the movement, said that the way they would go to work was to organize in the churches, a society and excite the sympathies of the weak members and the commoner classes of the people. The effect of this, is a thing that we ought to consider from our own standpoint and not from the public's standpoint. Wine is not a drink to be drunk in a hurry like beer or whiskey? It is a drink to be used leisurely and at the table. This last movement if successful, would practically cut off the wine business. Only a few rich people who could afford to have it in quantities, and keep it in their own cellar would be using it. It would be practically cut off from the table. It is too bulky an article to be hidden, and is something to be purchased in quantity and not by the glass in a hasty manner. You cannot be taken up into a third story bed-room in a hotel, as you can in Portland, Me., when you want a drink of whiskey, for the purpose of drinking wine. We are hurt more than any other class, for the practical result of prohibition is to prevent the use of harmless drinks, and really beneficial ones, and force to the use of the worst classes of drinks, and really it demoralizes the whole community. We have a personal interest as well as that which is connected with our business. We have the interest connected with our rights as citizens, and we have the interest connected with our principles of Government, and in respect to law and good order. We want you to think about this, and take some action and work, and we cannot work by resolution or by speeches. We have to have a main organization and keep branches supplied with the material necessary to make the fight. Otherwise our ground will be cut from under us. It will take a little time for the prohibitionists to take the South. I am firmly convinced that very little crusading will break them all up. When I was in Washington I felt so convinced, that I believed any man understanding the subject, and feeling jealous in his rights could have gone there and made a great inroad in their work. I wanted to go down and see what I could do myself, but I could not get away. But nobody is following it up. They are progressing and doing us harm, and as I said before, the country is falling into the hands of cranks, for the simple reason men will not contend for their rights. To this end, the meetings to-morrow are of the more importance. We want unity, harmony and good fellowship among ourselves. We want effective, energetic work done by men who can be trusted. We have power enough in this State to do a great deal. More in this State than in any State of the Union, considering its population, for there is so large a proportion of us who were not born here, and have connections and friends in the Eastern States whom we can call upon for assistance in support of the bill. I suppose I am now addressing not less than fifty persons, each one of whom has some friends in the Eastern States, who could bring some influence to bear on his member of Congress in convincing him that it is proper to vote for this bill. What we want is for every wine grower throughout the State, and every one who hopes that it will succeed to constitute himself a committee of one on the measure before Congress, and urge the passage of the bill without compromise, no cavilling about words. If it gets battered a little in the House, get it through. Get it through anyhow, and have it fixed in the Senate. If it does not go satisfactory, get it through and fix it up afterwards. But you want these men who have influence, so as to get right to the friends in Congress when we want them, to look after its interest and get the help of these people. Write to your friends

in the East and tell them to urge their Congressmen to vote for "Colonel Green's Bill on Spurious Wines." That will be sufficient to identify the bill, and if the help is ever so little, it will be something in the great amount of work that we have to do.

Mr. Palmatag.—They are already getting in in Santa Cruz County in this matter of Local Option. They have gotten up a petition for the calling of an election. They called on me as one of the supervisors and chairman of the board to call an election. I told them that we had no right to call an election for that purpose. Out of the 1400 voters they have 800, which is a majority, so they are going to present the petition before the board. As Chairman, I told them they could not act upon it, and the other members have the same opinion as I have. But the people are indifferent, and do not take sufficient interest. Many of the signers to the petition are men who don't work, some I have not seen doing any work since 1872. They had a temperance man there, a temperance lecturer from Iowa, and it was proven that the man was drunk twice in the town. They are now starting in Santa Cruz County, and we have to start in to check them. They insult all the foreign nations, and say they are nothing but liquor drinkers and wine drinkers. They have drawn up a bill to forbid wine making or beer making. Three years ago I travelled through Europe, and I asked my brother why there were so many breweries there now. He said it was because they had no wines there, and had not had for about five years, and they had to have something to keep them from liquor, so the Government built breweries. On my travels in Germany, France and Switzerland I have not seen a drunken man. Have seen them go to the beer gardens with their families and there enjoy their beer. In Liverpool I have seen drunkenness, and there was a great deal of liquor drunk, but where I have seen beer and wine used, there I have not seen any drunkenness. I could not go out in our County and contend against these prohibitionists myself, for I am not much of a speaker, and besides that, they say it is a disgrace to the County that a wine maker should have been elected to the Board of Supervisors.

Mr. Combe.—We had occasion to discuss this matter in Santa Clara County within the last two weeks. In the room were some that were prohibitionists and some that were not, and the greatest trouble we have is to separate the two classes. I had fortunately a great deal of influence on the assembly, as I could testify to the habits and results of wine drinking in Europe. They asked me to give my experience. I found the trouble is this, that they associate the drinking of wine with the drinking of liquors, and look upon wine as an intoxicating liquor, and they drift into that opinion and style us all as villainous drinkers. We should urge upon our friends, and use our own efforts to show them that wine drinking is an entirely different thing from liquor drinking. The more we get in the habit of drinking pure wine, the less any other liquor, even pure liquor, will be consumed in the country. Only in that way will we secure the approval of many men who now think there is no difference between the two classes. I received an acknowledgement from the President of the Prohibition Society in Santa Clara County. He acknowledged that my views were correct, but that they could not make two issues out of the matter; that they must lump it all together, everything intoxicating. But he acknowledged that if we could persuade the people to be moderate in the use of wine he could not see why they could not be temperate. The argument we can use with them is this, that they cannot get prohibition now, and if they want to get true temperance, they must encourage the wine makers, and especially the practice of drinking wine moderately in the house and prevent the going out and tipping.

The President.—Had these people, who are so eager for prohibition, been here during this week and seen the attendance and the earnest interest that was shown in the trial of wines, and then the almost indifference that was manifested when the brandies were brought forward for testing, they would have been taught a useful lesson. The wine-makers have no appetite for liquors. As soon as the brandies came forward everybody left.

Dr. George Bernard.—I have very little to say on prohibition, still we can do a great deal individually to teach the people that they should drink wine, and if any of you gentlemen come to Livermore, you can go to one of the hotels and call for a glass of wine, a cup of coffee or tea, and they won't make any difference in the charge. There is no extra charge for the wine. They give you a good glass of ordinary claret, and I notice a great many drink it. I went into one of the hotels last week and inquired how much they used, and they said they used about fifteen gallons a week. The boarders use a good deal of claret. As I have said previously, we can do a great deal individually to teach people to drink wine, and what little I can possibly do, I try to do. I tell the people the difference between good, wholesome wine and poor wine. Of course, there are a great many people whom you cannot force to drink wine. They say it is sour and do not like it. That is all right; they are not forced to drink it, but there are a great many people whom you can convince that a glass of good, wholesome wine is beneficial to drink. It is better than whiskey. There is considerable wine drunk in our district. We make our wine and lack no market for it. I was perfectly astonished last week when my partner told me he had already sold over 200 gallons of wine. It is wholesome wine, and I have no doubt that the people will learn to drink wine and less whiskey. However, the work is slow.

Mr. Wetmore.—Do all the hotels in Livermore give wine on the table?

Dr. Bernard.—Two hotels, the Washington and Morning Star, and we expect the other will follow.

Mr. Wetmore.—I am glad to hear that. In Napa, where they raise more wine than anywhere else in the country, you cannot get a glass of wine unless you pay a fancy price.

Dr. Bernard.—They found out it was just as profitable to give wine as tea or coffee. I have not the slightest doubt that the other hotel will soon follow.

The President.—We will now listen to a few remarks by Capt. C. de St. Hubert.

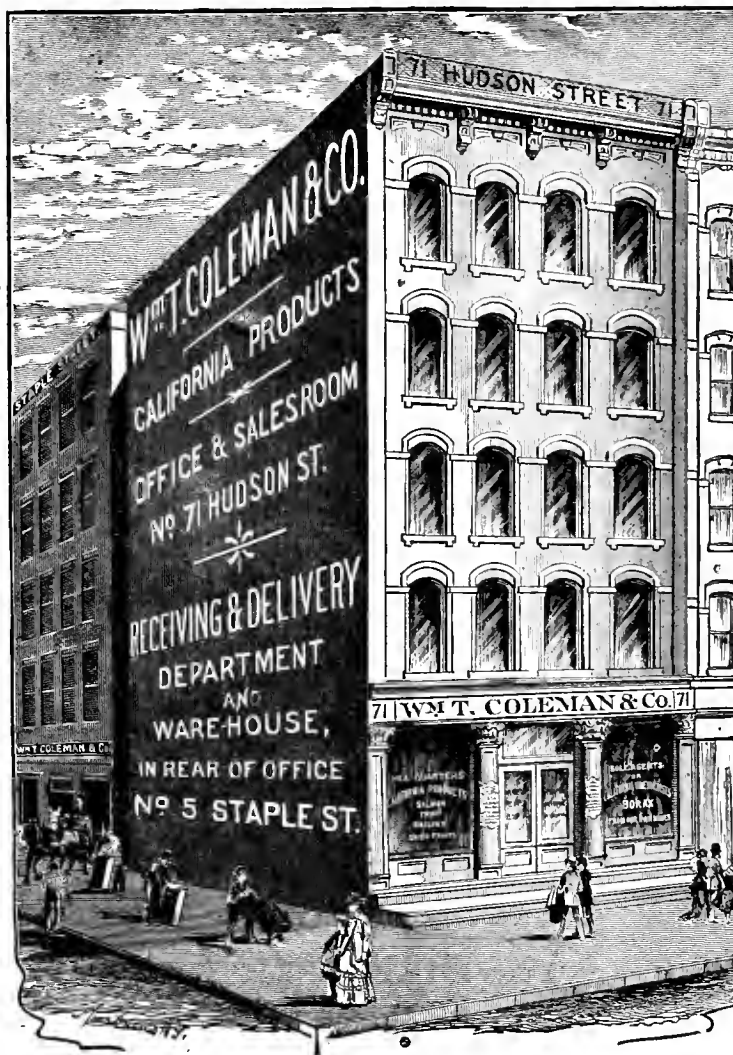
Capt. C. de St. Hubert.—Mr. President, Ladies and Gentlemen: I do not know what I can say after what has been said, but I can show that the use of wine in Algiers and France are the causes that prevent drunkenness. In 1864, when I was there, they had wine pure, but not very good. It was delivered free to the soldiers. Previous to that a great many deaths had occurred from delirium tremens caused by drinking spirits and absinthe in large quantities. Since that, it is almost unknown in the army. In France there is a society to prevent drunkenness in the low quarters on account of the bad wines distributed there and drank for two sons over the counter. Lately in France, I suppose, they have been obliged to come to it to provide for the demand of that class of people. The wine being found bad by them, of course they returned to the spirits and now there are a large number of drinking people in the cities. The Government now is taking steps to prevent it. The result will be that they must get wine or they will do the same as they do in London, where they drink large quantities of whiskey and gin, but no wine. Lately, in San Jose, I could not find a restaurant where wine was not given at the meal without extra charge. Six years ago I could not find a restaurant in the same place where I could get a bottle of wine. The wine is not always as good as it ought to be, but certainly it was pure wine. That is a great result. I have just learned that on account of these low freights, a good deal of bad wine has gone East. Wine that could not be sold here at all has gone there. What will be the result of that? It is easy to see that somebody will buy it over there, and sell it as pure wine. It may be pure, but it is bad. The sending of such wines by our wine-growers is a bad practice. It ought to have been turned over to the distillers. Even with the new law, it is admitted that though the wine is poor, still if it is pure it can be sold, but what will be the result of pursuing such a course, it will simply prevent the man from selling good wine at a price that he would like to get for it. To-day I have been testing samples of wine that a man has sent to a place he knows where he ought not to send anything but very good wine.

CALIFORNIA WINES AND BRANDIES,

San Francisco,
121 Market Street.

Astoria, Oregon,
Flavel's Wharf.

Chicago, Ill.
91 Michigan Avenue.



New York.
71 Hudson Street.

London,
4 Bishopsgate St.,
within E. C.

Liverpool,
54 Drury Buildings.

WM. T. COLEMAN & CO.
71 HUDSON STREET, NEW YORK CITY.

ALSO AGENTS FOR
ALCOHOL, WINE AND SPIRITS.

VINES AND FROST.

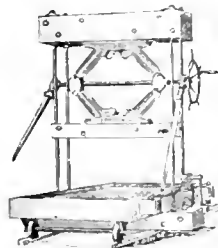
Sonoma Index Tribune

As is well known every grape grower is in dread of frost during the months of April and May. So destructive have frosts been to the grape crop during the above months in past years, that much attention has been given by the vintyardists of this valley for a remedy. One of the most active of our vintyardists, J. H. Drummond of Glen Ellen, by practical experiments, has proven that smoke will protect the vines from frost if the smoking process is properly carried out. Any material that will make a dense, heavy smoke that will rise but a short distance from the surface will answer the purpose for making the bon fires. These fires are made thirty or forty feet apart throughout the vineyard.

In order to know exactly when to start the fires to prevent damage from frost, which always makes its appearance in the early hours of the morning and to give warning of its approach, an electrical alarm thermometer has been introduced into many of our vineyards and has been found to work like a charm. These alarms cost but \$13 a piece, and have been the means of saving the crop of many of the Glen Ellen vineyards, and no vineyardist should be without one. They are an English invention, and were introduced into this country by J. H. Drummond, who has a number on his place. The vineyards of Capt. H. E. Boyes, Jas. A. Shaw, A. Box, Mrs. Hood and others are also supplied with them. By this simple contrivance, which is nothing more or less than a wire attached to the thermometer, which is set in the dampest and lowest place in the vineyard where the frost is most likely to strike. This wire connects with an alarm bell which is located inside of the house, and when 34 degrees is reached, the bell is made to ring continuously, which arouses all hands, who turn out and start the fires, the smoke of which protects the vines.

It has been demonstrated that it is a mistaken fallacy that the injury the vine receives from frost is due to the frozen vine — the damage is inflicted as soon as the frost touches the vine, hence, fires lighted at sunrise will not answer the purpose. The vineyard must be enveloped with smoke before the frost falls, and here is where the value of the electric alarm thermometer comes in.

**WORTH'S IMPROVED
PATENT
COMBINED TOGGLE LEVER
—AND—
SCREW PRESS.**



Look to all the attention of wine and oil makers to my Improved Press. With this Press the movement of the follower is first at the commencement, moving one and a half inches with one turn of the screw. The last turn of the screw moves the follower one-sixteenth of an inch. The follower has an up and down movement of 26 3/4 inches, with the double platform run on a rail and truck. You can have two curbs, by which you can fill one while the other is under the press, thereby doing double the amount of work of any other press in the market. Model on exhibition at the offices of the Board of State Viticultural Commissioners. List of Agents and Dealers for all purposes: Eschler, Giffers, Plum, Fitters, Worth's System of Heating Dunes by hot water circulation. Send for our circular.

W. H. WORTH,

Petaluma Foundry and Machine Works,
Petaluma, Sonoma Co., Cal.

Testimonials from: I. De Turk, Santa Rosa; J. B. J. Portal, San Jose; Ely L. Sheppard, Glen Ellen; K. F. Warfield, Glen Ellen; J. H. Drummond, Glen Ellen; Joseph Walker, Windsor; John Hirschman, Fulton; Wm. Philbrick, Guerneville; J. A. F. Walker, Windsor; R. P. Stiller, Guerneville; Lay Clark, Santa Rosa; Vackay, Forest, and San Bernardino; J. F. Crank, William Allen, Sacramento; June Embury, R. & J. J. Good, Heidelberg; W. Metzger, Walter Phillips, Santa Rosa; J. Lawrence Watson, Glen Ellen; Geo. West, Stockton; can be had by applying for printed circulars.

AGENCY OF

WM. T. COLEMAN & CO.

91 MICHIGAN AVENUE, CHICAGO.

California Products a Specialty.

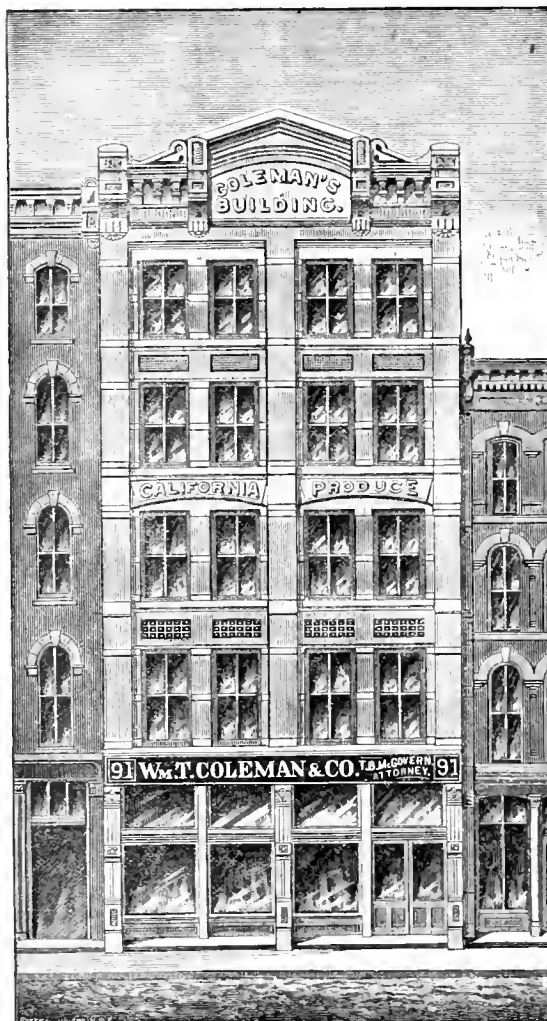
California
Canned
Fruits.

California
Dried
Fruits.

California
Raisins.

California
Wines.

California
Oranges



COLUMBIA AND SACRAMENTO RIVER SALMON,

—AND ALL—

Pacific Coast Products Suited to Eastern Trade.

CONSIGNMENTS SOLICITED, AND ALL CORRESPONDENCE

PROMPTLY ATTENDED TO.

T. B. McGOVERN, Manager.

RUPTURE RADICALLY CURED by Dr. Pierce's Great Discovery. Thousands of patients cured at their own homes. No Experiment! It does the Work! Drs. PIERCE & SON, 701 Sac Co St., San Francisco, Cal.

JOHN SMITH, WOOD AND COAL DEALER.

223 POST ST., San Francisco.

FINED \$50 FOR SELLING COAL AT LESS PRICE than that established by the Retail Imposers. Don't be imposed upon, but buy your Coal from me, and help break down a combination to rob the poor man.

A. O. COOK & SON,
MANUFACTURERS OF

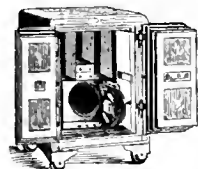
OAK TANNED
TRADE MARK.

Leather Belting

LACED LEATHER IN SIDES AND CUT STRINGS.

415 Market St. San Francisco.

FIRE-PROOF SAFES ALL SIZES.



built to order.

CHAS. WALTZ,
11 Drumm Street, San Francisco, Cal.
Write for prices and information.

BUHACH AGAINST INSECTS!

Now is the time to destroy Insects on Trees, Vines, Rose Bushes, or any other plants with **Buhach**, the great

California Insect Exterminator!

DON'T BUY IT IN BULK, but in original cans. Warranted absolutely pure. Directions for use with each can. Sold by Druggists and Grocers everywhere.

Buhach Producing & Mfg. Co.,
154 LEVEE ST., Stockton, Cal., and 49 CEDAR ST., New York, Sole Manufacturers.

P. S.—In all cases where the powder fails to do the work, please send us a sample of it by mail, and the name of the dealer, so that we may protect the consumer, as many dealers have been selling spurious insect powders for Buhach. The word "Buhach" is our registered Trade Mark, and no person can sell any other Insect Powder but ours under that name.

WOODLAND WINERY FOR SALE.

Located at Woodland, Yolo County, Cal.

Complete in all its Appointments. Capacity 120,000 gallons. Steam Crusher, Hand Crusher, two Stills, Syrup Pan, Pumps, and everything Complete. Cooperage in best condition.

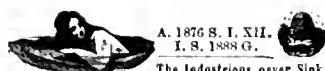
TWO-STORY BRICK BUILDING,
125x60 Feet. Fifty rods from Depot.

Three thousand tons Wine Grapes raised here last season. This is a rare chance for engaging in this business. For full particulars inquire at office of

LANDBERGER & SON,
123 California Street, S. F.

— OR TO —

CLARK & CULVER, Proprietors,
WOODLAND, Cal.



A. 1876 S. I. XII.
I. S. 1888 G.
The industrious never Sink.
GUY E. GROSSE, Broker in Real Estate
Ranches, Residence, Business and Manufacturing Property Bought and Sold on Commission.
Also Publisher of "Sonoma County Land Register and Santa Rosa Business Directory."
Office, No. 312 B St., SANTA ROSA, CAL.

BOSTON BELTING CO.

GOOD ROSE A SPECIALTY.

J. W. CIRVIN & CO.,
24 CALIFORNIA STREET, F.

FILTERS
FOR WINES.
FILTERS

GEO. J. HUTCHINGS,
148 N. HOWARD ST., BALTIMORE, MD.

THE WELLINGTON,

21 DUPONT ST.,

Near Market, SAN FRANCISCO.

Handsomely Furnished Rooms
FOR GENTLEMEN ONLY.

HERRMANN & CO.,
HOP MERCHANTS.

Importers and Dealers in

CORKS, BREWERS' AND BOTTLE'S SUPPLIES,
SODA WATER AND WINE DEALERS' MATERIALS.

ALEX. FRIES' & BROS. COGNAC OILS,
ESSENCES AND FLAVORS.

331 SACRAMENTO ST. San Francisco.

NOW READY.

THE
REPORT

OF THE

FOURTH ANNUAL

STATE

VITICULTURAL
CONVENTION.

PRICE, ONE DOLLAR.

OFFICE OF THE SAN FRANCISCO MERCHANT.

E. C. HUGHES & CO.,

Publishers,

511 Sansome Street,

CALIFORNIA VINEYARDS.

KRUG CHARLES,
Krug Station, St. Helena, Napa Co., Cal.
Producer of fine Wines and Brandies.

J. C. WEINBERGER, Manufacturer of Wines, near St. Helena.

H. W. CRAIG, Wine Cellar and Distillery, Oakville, Napa County.

SAN FRANCISCO WINERY, RUEFF & REH,
Business Proprietors, 116 1/2 Eighth St., S. F., Cal.

MOUNTAIN WINE
From the Celebrated

YERBA BUENA VINEYARD.

Situated 7 miles East of San Jose. One then and feet above the Valley. In cases or bulk fine old Burgundy and Mountain Riesling.

PAULO O. BURNS WINE CO., Proprietors,
Branch Cellars in San Jose, Cal.
WM. T. COLEMAN & CO., SAN FRANCISCO,
Sole Agents for Chicago and New York

T. & M. E. Tobin & Co.,

PRODUCERS OF PURE

CALIFORNIA WINES & BRANDIES,

Cor. Stockton & O'Farrell Sts.

San Francisco, Cal.



P. P. MAST & CO.

31 MARKET ST., S. F.

SELL THE WELL AND FAVORABLY KNOWN

BUCKEYE PUMPS,

The simplest and easiest worked Pump

FOR WELLS OF ANY DEPTH

Ever Offered.

SEND FOR CIRCULAR AND PRICE LIST.

Graham Paper Co.

OF ST. LOUIS.

W. G. Richardson,

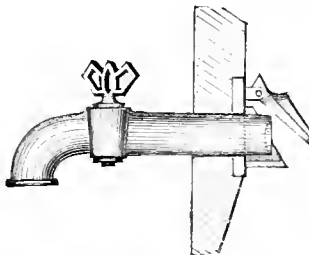
PACIFIC COAST MANAGER,

No. 529 Commercial St.,

SAN FRANCISCO, - - - CALIFORNIA.

TELEPHONE No. 1064.

THOMAS S. CLAISTER'S
PATENT VALVE ATTACHMENT
FOR WINE AND BEER CASKS.



Claim.—1. The combination, with annular valve-seat secured within a cask behind the bung-hole, of a gravity-valve provided with a threaded socket, and a spindle adapted to engage the socket and securely hold the valve against its seat, substantially as herein.

2. The swinging or gravity valve on the inner surface of the door of a cask, and controlling its bung-hole, in combination with the means for positively holding said valve closed. When the wine is ready, it can be drawn off by simply inserting the faucet.

For further particulars apply to

THOMAS S. CLAISTER,
Sonoma, Sonoma County, Cal.

THE CUPERTINO VITICULTURAL SOCIETY

Meets on the evening of the third Thursday of each month at Mr. Montgomery's.

J. C. MERRITHW, President
J. D. WILLIAMS, Vice President
R. C. STILLER, Secretary

Please address all communications to R. C. STILLER, Gilchristville, Santa Clara Co., Cal.

ESTABLISHED IN 1860.

ALL WINE MAKERS

Should drink the

PURE BELMONT

— HAND-MADE —

SOUR MASH WHISKY.

Supplied in lots to suit by

JAMES CIBB, 617 Merchant St.

THE RISDON

IRON AND LOCOMOTIVE WORKS.

Cor. Beale & Howard Sts., S. F.

W. H. TAYLOR, Pres't. **JOSEPH MOORE, Engr't**

BUILDERS OF STEAM MACHINERY

IN ALL ITS BRANCHES.

Steamboat, Steamship, Land Engines
and BOILERS, High Pressure or Compound.

STEAM VESSELS of all kinds built complete, with Hulls of Wood, Iron or Composite.

STEAM BOILERS. Particular attention given to the quality of the material and workmanship, and none but first-class work produced.

SUGAR MILLS AND SUGAR-MAKING MACHINERY made after the most approved plans. Also, all Boiler Iron Work connected therewith.

PUMPS. Direct Acting Pumps, for Irrigation & City Water Works purposes, built with the celebrated Dwyer Valve Motion, superior to any other Pump.

A. ZELLERBACH,

IMPORTER AND DEALER IN

BOOK, NEWS, FLAT, WRITING PAPER.

MANILA, WRAPPING AND STRAW PAPER,

Colored, Poster and Tissue Paper, Also Envelopes and Twine.

509 CLAY STREET.

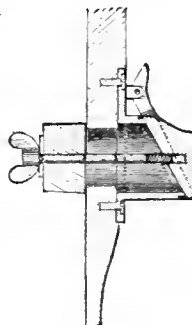
A few doors above Sansome, San Francisco, Cal.

E. L. G. STEELE & CO.,

Successors to

C. ADOLPHE LOW & CO.,
COMMISSION MERCHANTS.

Agents American Sugar Refinery and Washington Salmon Cannery.



OUR NATIVE WINE SHIPMENTS BY SEA.

PER P. M. S. S. CO'S. STR. SAN JUAN, MAY 8, 1886.

TO NEW YORK.

MARKS	SHIPPERS	PACKAGES AND CONTENTS	GALLONS	VALUE
A V Co, New York	Walter, Schilling & Co	100 barrels Wine	4922	\$1722
L Althof, New York	"	35 puncheons Wine	5357	2078
"	"	9 barrels Wine	284	231
"	"	2 octaves Wine	52	52
"	"	1 case Wine	5	5
K & F, New York	Kohler & Frohling	55 barrels Wine	2585	1465
B D & Co, New York	B Dreyfus & Co.	130 barrels Wine	20120	8600
Total amount of Wine			33,427	\$14,955

TO CENTRAL AMERICA.

J G B, Punta Arenas	Williams, Diamond & Co	3 kegs Wine	20	\$ 20
A Z & Co, Guatemala	Kullman, Salz & Co.	3 casks Wine	101	61
O V S, Punta Arenas	Thannhauser & Co	6 barrels Wine	203	187
Total amount of Wine			324	\$271

TO MEXICO.

A D & C's, Acapulco	J. Carr	3 casks Wine	129	\$99
---------------------	---------	--------------	-----	------

TO PANAMA.

S B, Panama	Deisen Bros	4 cases Wine	20	\$24
-------------	-------------	--------------	----	------

MISCELLANEOUS SHIPMENTS.

DESTINATION.	VESSEL.	RIG.	GALLONS.	VALUE.
Honolulu	Caribarian	Bark	49	\$ 60
Antwerp	M Hutchinson	Bark	190	92
Liverpool	"	Bark	60	30
Tahiti	City of Papete	Barkentine	148	81
Victoria	Queen of the Pacific	Steamer	43	48
Victoria	Mexico	Steamer	362	207
Mexico	Newbern	Steamer	181	145

TO NEW YORK—PER STEAMER SAN BLAS, MAY 15.

B D & Co, New York	B Dreyfus & Co.	430 barrels Wine	20090	\$8600
S & C, New York	C Anduran & Co.	100 barrels Wine	4666	1848
C K, New York	Kohler & Frohling	50 barrels Wine	2317	1040
K & F, New York	"	10 barrels Wine	475	260
P K, Syracuse	Walter, Schilling & Co	5 barrels Wine	236	141
P A, New York	"	25 barrels Wine	1235	432
L in diamond, New York	"	3 puncheons Wine	750	400
A V Co, New York	"	7 octaves Wine	188	112
"	"	95 barrels Wine	4646	1858
"	"	30 puncheons Wine	4515	2709
G H C & Co, New York	"	2 barrels Wine	97	97
Total amount of Wine			36,201	\$17,497

TO PANAMA.

J R, Panama	Cabrera, Roma & Co.	20 half puncheons Wine	1200	\$480
"	"	2 kegs Wine	20	20
F S, Panama	M Gerdina & Co.	1 barrel Whiskey	40	120
J A F, Panama	Urruela & Urrutia	30 cases Wine	150	120
P D, Panama	"	2 kegs Wine	40	41
Total amount of Wine			1410	\$661
Total amount of Whiskey			40	120

TO MEXICO.

T F & Co, Salinas Cruz	Cabrera, Roma & Co.	1 barrel Wine	25	\$22
S H, Salinas Cruz	"	10 barrels Wine	160	144
L Golo, Tonalá	"	10 cases Wine	50	45
G & F, San Blas	"	1 cask Wine	60	39
F in diamond, San Blas	W Loiza	3 kegs Wine	54	42
G T, San Benito	"	6 & 4s Wine	161	110
L A, Salinas Cruz	Thannhauser & Co.	2 barrels Wine	67	55
E H, Acapulco	J O Meyerink	1 barrel Wine	47	35
Total amount of Wine			624	\$493

TO CENTRAL AMERICA.

J A, Amapala	John T Hayland	3 barrels Whiskey	116	\$367
"	"	2 half casks Claret	68	68
L L C, Corinto	"	1 barrel Whiskey	40	120
L & N M, Sao Juan del Sur	S Lachman & Co.	55 cases Wine	275	186
J L C, Corinto	B Dreyfus & Co.	10 barrels Wine	496	420
R G, Corinto	Sperry & Co.	5 cases Wine	25	19
F V, Corinto	Cabrera, Roma & Co.	2 barrels Wine	68	68
Total amount of Wine			932	\$701
Total amount of Whiskey			156	487

MISCELLANEOUS SHIPMENTS.

DESTINATION.	VESSEL.	RIG.	GALLONS.	VALUE.
Legeln	H L Tiernan	Schooner	130	\$ 63
Salata Rasalia	Kalakaua	Bark	1616	686
Liverpool	A D Snow	Ship	30	24
Nadamo	Queen of the Pacific	Steamer	44	11
China	Belgie	Steamer	139	102
Japan	Belgie	Steamer	162	138

Total shipments by Panama steamers	73,067 gallons	\$34,761
Total shipments by other sea routes	3,154 "	1,687
Grand totals	76,221	\$36,448

THE COOS BAY STAVE & LUMBER CO.

— MANUFACTURERS OF ALL KINDS OF —

COOPERAGE GOODS!

Especially invite the attention of Wine Men to their unsurpassed facilities for supplying packages from a

5-GALLON KEG TO A 160-GALLON PIPE OR PUNCHEON.

Our machinery enables us to execute all orders with promptness and economy. Price List on application.

OFFICE: 323 FRONT STREET,

WORKS.....BRANNAN ST., NEAR EIGHTH.

WILLIAM CLUFF & CO.,

WHOLESALE

Grocers and Provision Dealers,

16, 18, 20 & 22 FRONT, Cor. PINE Street, S. F.

All Orders by Mail Promptly Attended to.

WM. T. COLEMAN & CO.,

Commission Merchants.

SAN FRANCISCO,

NEW YORK,

CHICAGO,

Agency Wm. T. COLEMAN & Co.,

Agency Wm. T. COLEMAN & Co.

ASTORIA, Or.,

LONDON.

With Agents and Brokers in every Commercial City of Prominence in the Union.

WE MAKE A SPECIALTY OF HANDLING THE

RAISIN CROP OF CALIFORNIA!!

And amongst others we are Agents for

Riverside Fruit Company of Riverside, Miss Mary F. Austin of Fresno, McPherson Bros. of Orange, T. C. White of Fresno.

With many other of the Most Prominent Curers of this State. One Facilities for Promptly Placing and widely Distributing Their Produce Can be Ascertained from the Above well-known Curers.

We are also Large Handlers of

ORANGES, DRIED FRUITS, HONEY AND BEANS

IN THE EASTERN STATES.

Advances Made when Required, and Full Information of Markets Promptly Given. Address

Wm. T. COLEMAN & Co.

MARKET & MAIN STS., S. F.

WINE 1500 YEARS OLD.

Ransacking all the cellars of Europe, no quantity of any amount of the celebrated 1811 Comet vintage wine would be brought to light. Even the renowned 1834 vintage wines are now very scarce. To taste a glass of that vintage in a cellar where good fortune has preserved a trifle of it, is a chance few people may enjoy. And when the select ones that are so fortunate as to partake of it, are allowed the privilege, depend upon it, they can do so only as the highest distinction of the acknowledgment of real wine-wisdom. Should a mortal of culture venture to express the contrary to what he thinks of the dram, his doom would be sealed and his gastronomic talent henceforth be annihilated. Remember, when a glass of very old wine is offered you in a cellar of some fame, it is your duty to praise its quality. Your host would be offended to the quick, and your judgment be lowered in his eyes to the deepest degree, should you find one flaw in the liquor tendered you.

Now, the best room in your house contains the picture of your grandmother. It represents a youthful beautiful face. This was I, the old lady will tell you, when I was married to your grandfather, if you ask whose picture it is in that room. Comparing the face in the picture with that of your worthy ancestress, you find lines of resemblance. There are the traces of a family likeness. There you have the counterpart of the very old vintage compared to its younger successor. If you know how to perceive it, a faint remnant of the spicy fragrance of the young vintage will greet your senses from the glass of the venerable wine aged with your ancestors. The family resemblance is present, but where is the fire of youth of the liquid which once has been charming, and now only presents shadow where once was light and gracefulness and piquancy? And these traits of semblance only exist for him who can find them. The uninitiated perceive none of the slight remnants of a flavor which has been, and which age has not quite effaced. The 1624 vintage of the celebrated Rose of Bremen, of which the writer was permitted to taste a glass, exhaled an atom of fragrance like that of a faded flower kept for half a century among the leaves of an old book as a keepsake. But the taste I had, without daring to confess it, to compare with salt water to which vinegar and some bitterish matter had been added. These were the impressions from a 250 years old wine. A singularly fortunate circumstance allowed the writer to become acquainted with a wine 1500 years old.

The ancients had their ideas of the continuation of existence after death, which are different from our customs. That the deceased may enjoy the advantages of some of the necessities of this life when landing in the future life, the pious relatives put in to his grave his arms and a coin to pay the

ferryman to cross the river. To let him quench his thirst, a Roman, accustomed to a goblet of fair wine, received an "ampulla" of wine in his grave. Such ampullas can be seen in collections of antiquities, taken from Roman graves. The wine in the flask shown me, had long since dried into a reddish brown substance, the rest of coloring matter of a red wine. (Such substances have often been mistaken for blood of martyrs.) Long before the historical times of the Romans, the provisioning of a warrior with wine in his grave was practised. At Aliscamps, near Arles in France, an ancient Roman grave was discovered. An ampulla with its neck closed by fusion was taken from the grave. This was sent to Paris, and Monsieur Berthelot, the chemist, made researches on it. The substance described, contained at its bottom, was found to have been wine of a low alcoholic strength, with traces of flavor and a considerable proportion of acetic acid. Of course, I cannot describe how the wine must have tasted, but I remembered the Bremen Rose wine. The vessel was glass, but decomposed and partially become crystalized. Heated, it did not melt like ordinary glass into a tough mass, but fell asunder in shapes of tender leaflets.

The idea struck me that it might be of interest to observe how wine thus inclosed in bottles, hermetically closed by fusion, might behave, having its composition carefully analyzed each time when opening the bottles. Changes thus observed after given periods may lead to very important knowledge in the study of winea.—*Oenophilus in Viennese Ally. Wine Journal.*

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

W. E. CHAMBERLAIN, JR.

T. A. ROBINSON.



Life Scholarships, \$75.

DAY AND EVENING SESSIONS.

Ladies Admitted into all Departments.
No Vacations. Send for Circular.**LANDSBERGER & SON,**

Successors to

LANDSBERGER & CURTISS,

123 California St., - - - San Francisco.

AGENTS FOR THE PURCHASE AND SALE OF

Viticultural Products and Vintners Supplies.

AGENTS FOR

KIDD'S INTERNATIONAL DISTILLERY, DES MOINES, IOWA.

Correspondence Solicited

THE OLDEST WINE HOUSE IN THE UNITED STATES.**John Osborn Son & Co.**

NEW YORK.

(FOUNDED 1836.)

MONTREAL.

Shipping and Commission Merchants.

(P. O. BOX NO. 30, N. Y.)

45 BEAVER STREET, NEW YORK.

Correspondence solicited with Winemakers throughout the State, and also for all California Fruits and General Produce.

We handle all goods as we receive them, and it is the object of all shippers to ship only such wines, etc., that will establish a reputation. As sole agents for PIPER HEIDSIECK and PIPER SEC CHAMPAGNE, our importations for the last three years were 125,000 Baskets, or more than three times the importations of all other brands imported to the Pacific Coast.

Valuable Patent FOR SALE.**The Claus Improved**

GRAPE-VINE TRELLIS.

LATELY PATENTED, ATTRACTS GREAT ATTENTION among vintners everywhere as far surpassing any other form by efficiency and perfection. Generally acknowledged to be a meritorious invention and an unrivaled progress in viticulture, it will pay its application tenfold. It is truly a first class acquisition.

RIGHTS OF THIS PATENT

FOR SALE BY

AMERICAN PATENT AGENCY,

188 & 190 WEST 5th ST.,

Cincinnati, Ohio.

Full descriptive illustrations, costs, etc., given by the above and the inventor

C. H. TH. CLAUS,

Cor. Iowa & Keokuk Sts., St. Louis, Mo.

DR. A. FONTAINE'S PREPARATION

WILL DEVELOP A BEAUTIFUL FORM IN SIXTY DAYS. The effect of which is permanent and plainly discernible in ten days. Where a perfect bust is already possessed, it will preserve the same firm, and perfect in shape. This is a carefully prepared prescription of an eminent French physician and scientist, and is free from lead and all injurious ingredients, and will not injure the most delicate skin. A fair trial will not only convince you of its efficacy, but will elicit your sincere thanks and enthusiastic praise. Mailed secure from observation on receipt of price, \$1.00. Sealed circular, 4 cts. Sold by Druggists. Address, MADAME FONTAINE, 19 East 14th St., N. Y.

CHOICE**OLD WHISKIES**

PURE AND UNADULTERATED.

We Offer for sale on Favorable Terms to the Trade,

CATHERWOOD'S

Celebrated Fine Old Whiskies,

OF THE FOLLOWING

"CRANSTON CABINET"

"A.A.A." "CENTURY"

"OLD STOCK"

"HENRY BULL"

"DOUBLE B"

"MONOCRAM"

VERY OLD AND CHOICE, IN CASES OF ONE DOZEN QUART BOTTLES EACH,

"BRUNSWICK CLUB" Pure Old Rye, And "UPPER TEN."

For Excellence, Purity and Evenness of Quality the above are unsurpassed by any Whiskies imported. The only objection ever made to them by the manipulating dealer being that they cannot be improved upon.

Dickson, De Wolf & Co.**SOLE AGENTS,**

SAN FRANCISCO, - - - CAL.

E.C. HUGHES PRINTER
511 Sansome St., S. F.

THE

"SAN FRANCISCO MERCHANT"

Is the Only Paper that Represents the

GRAPE, RAISIN AND WINE**INDUSTRIES OF CALIFORNIA.**

It is Replete with Accurate and Valuable Information.

SUBSCRIPTION, - - - THREE DOLLARS A YEAR.
(Payable in Advance.)**E. C. HUGHES & Co., Publishers,**

511 Sansome Street.

THE PHYLLOXERA.

How to Detect Its Presence.

(Wanberg Times.)

The following memorandum on the symptoms of the presence of the Phylloxera on the vine has been published for general information.

1. The presence of *Phylloxera vastatrix* is not immediately signaled by any one sharply-defined symptom. A vine, newly attacked by a small number of Phylloxera can hardly ever be detected among healthy vines, unless evidence other than that of mere inspection of the foliage leads up to close search among the roots. So vigorous is the normal growth of the vine, so tolerant is it of hard usage, that its roots will for a long time continue to absorb enough food from the soil, both for the parasitic insects established upon them, and for the plant itself. Hence the Phylloxera may exist for a whole season without exciting suspicion.

2. The first indication of commencing exhaustion, due to the Phylloxera increasing in number, sucking away so much sap as to stint the upward flow into the stem, and disorganizing the vascular structure of the roots by punctured wounds, is something similar to what may be seen in any tree-growing plant that has by neglect become 'pot-bound.' Everybody knows this peculiar condition. The young shoots grow slowly, the buds seem unable to start their leaves fairly out, the leaf-stalks are short and weak, the internodes too slender for health and yet become hardened on the outer surface. The skin of the leaf looks as if varnished, and feels hard and dry to the touch. Ultimately the green tissue becomes yellow or even brown, dries, and the leaf drops. A gardener accustomed to go his rounds among a limited number of plants every day, like a medical man among his patients, detects such symptoms in a very early stage. Root mischief going on is plain to the educated eye. The plant is knocked out of the pot, examined and new conditions and regimen imposed at once.

3. Now what takes place in a pot-bound plant, whose rootlets seek food and find none, is imitated pretty closely by a vine whose root-drawn food is being stolen by Phylloxera. After the mischief has gone on for one or perhaps two seasons, there results a considerable impoverishment of the usual generous supply passed up by the

roots. One sees the symptoms enumerated above one after the other—slow growth of young parts, tendrils sluggish in turning, leaves with a hardened, parched aspect and readily broken off at the foot-stalk, ultimately assuming a sickly-green hue, and dropping exhausted before their time.

4. This condition of things has unquestionably been present in some Cape vineyards for several seasons without attracting special notice. The vines have been said to be "going back," and dryness, moisture, an impervious clay subsoil, with many other supposed causes, have in turn been credited with the mischief. After several seasons the phylloxerized vine becomes utterly exhausted, makes a last effort to respond to the stimulus of the spring season, by putting forth weak shoots about a span long, and succumbs entirely when the hot, dry weather sets in.

5. When the first symptoms of root-mischief betray themselves in stem and foliage so clearly as to attract attention, it may be taken for granted that the evil is far advanced. On digging up the old root, with such care as to avoid the white or pale-brown rootlets, a sharp eye will detect a dull-yellow powdery appearance on the bark or in crevices and angles. This, on examination with a very ordinary lens, will be seen to consist of hundreds of little, wingless, yellowish lice, and perhaps many more egg-like bodies ready to be hatched. Often there are none at all on the old root. Then they will be found in clusters upon the pale-colored young rootlets.

6. Most persons have observed that when certain flies prick a stem or leaf to insert an egg in the puncture, the tissues swell up around the place and form a distorted lump of gall. Just so here. The Phylloxera prick the succulent rootlets and suck their juices. Where this puncture and suction has taken place, a sort of root-gall of more or less distinct character is formed by the injured tissue. Then, comparing a phylloxerized rootlet with a perfectly healthy one, the great difference caught by the eye at a glance is as follows.

7. Without help of a lens, a phylloxerized rootlet appears tangled, as if the original direction of growth had been sharply turned aside again and again. It recalls the writhing attitude of a worm. At short distances it is swollen into irregular sub-cylindrical galls of variable size, with interven-

ing portions of smaller diameter. Search with a lens is almost certain to show abundance of the wingless lice crawling on the root-galls, or hiding the loops of the tangled fibrils. The egg-like bodies (pseudova) will also be visible. But some rootlets may be found presenting numerous characteristic swellings, yet without a single phylloxera. Comparing these with the former ones, it will be seen that the swellings are flaccid, sapless, and generally brownish with incipient decay. There is scarcely anything left in them but woody fibre. The Phylloxera have been there, have drained the tissue dry, and have crawled away to a new and succulent rootlet.

8. A healthy vine rootlet, on the contrary, has almost always a very regular distribution of its parts. There is a main axis like a smooth piece of twine, and if it tapers, it does so evenly and not by sudden prominences and knots. The side fibrils follow the same orderly branching. Their tips, where alone they grow in length, are slightly enlarged, but even there one sees nothing like the knobbed galls of the phylloxerized root.

9. The diameter of the roots is excessively variable, altering with the sort of vine, with the depth, and probably quite as much also with the mechanical and chemical character of the soil. But this condition holds good in all cases; normal vine-rootlets are evenly cylindric, tapered off without irregular breaks and enlargements—phylloxerized rootlets are distorted, bent, gnarled, and, as it were, formed of alternating swollen portions and thinner portions.

10. The test of a suspected vine then is the growing rootlets, especially the apical-growing part of the current season, for roots do not elongate throughout their whole length, but grow longer solely by increase at the tip. The yellowness of the foliage may be deceptive, and arise from minor causes, for instance, too shallow trenching, sudden drought and wind following unreasonable rains, and so forth. But a peculiar drying up of the leaves at the edges, while the center remains green, is a frequent accompaniment of phylloxera, and should arouse suspicion.

11. In examining a vineyard showing dead or dying vines, such as are described in paragraph 4, it will often happen that no living phylloxera can be detected on the very worst examples in the area. In that

case, the observer must work outwards, taking one of the apparently perfectly healthy vines of the next row, or the next but one. The parasites will be there, newly arrived, having left the spot where food, formerly plentiful, has now failed them.

12. Hence the deceptive character of mere foliage signs of health cannot be too strongly insisted on. The growth of the vine is so vigorous, that it is possible for every stock in a plot of several thousands to be affected, although only an insignificant central patch shows a slight yellowish tinge, and perhaps only half a dozen stocks are obviously dead or dying. In all cases, three or four trials should be made in different spots, laying bare the roots, noting their appearance, and passing every suspicious rootlet under the scrutiny of the lens.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

GOODYEAR'S
"COLD SEAL"
Rubber Hose,
For Sale by All Dealers.



GOODYEAR RUBBER CO.
R. H. PEASE, JR., } AGENTS.
S. M. RUMYON, }
577 and 579 Market St., SAN FRANCISCO.

ESBERG, BACHMAN & CO.
IMPORTERS OF
Chewing, Smoking & Leaf Tobacco.
HAVANA CIGARS AND LEAF.
225, 227 & 229 California St. and 122, 124
& 126 Battery Street.
SAN FRANCISCO.
And Nos. 7 & 9 NORTH FRONT ST. PORTLAND.

THE AMERICAN SUGAR REFINERY COMPANY,

MANUFACTURERS OF THE

CELEBRATED CUBE SUGAR,

Supplies Only Exporters and the Jobbing Trade.

This Company manufactures all the Grades of HARD and COFFEE SUGARS and SYRUPS. Special attention given to the making and Packing of Loaf Sugar for Export.

208 CALIFORNIA STREET,
SAN FRANCISCO, CAL.

E. L. G. STEELE,
President.

Dr. MINTIE

THE SPECIALIST,

No. 11 KEARNY ST., San Francisco.

Treats all Chronic, Special and Private Diseases with Wonderful Success.

THE GREAT ENGLISH REMEDY



is a never failing cure for NERVOUS DEBILITY, EXHAUSTED VITALITY, SPINAL WEAKNESS, SPERMATORRHOEA, ETC. ETC. MEXICO, PROSTATITIS, IMPOTENCY, Paralysis and all the terrible effects of self abuse, youthful follies and excesses in mature years, such as loss of Memory, Lassitude, Nocturnal Emissions, Aversions to Society, Dimness of Vision, Noises in the Head, excess in drinking intoxicating liquors, the vital fluid passing unobserved in the urine, and other diseases that lead to insanity and death.

Dr. Mintie will be a Regular Physician Graduate of the University of Pennsylvania, who will agree to forfeit \$500 for a case of this kind the Vital Restorative, under his special advice and treatment will not cure, or for anything impure or injurious found in it. Dr. Mintie treats all PRIVATE DISEASES SUCCESSFULLY WITHOUT MERCURY. Consultation Free. Thorough examination and advice, including analysis of urine, \$5. Price of Vital Restorative, \$1.50 a bottle or four times the quantity, \$5; sent to any address upon receipt of price, or C. O. D., secure from observation, and in private name if desired, by Dr. A. E. Mintie, 11 Kearny street, San Francisco, Cal.

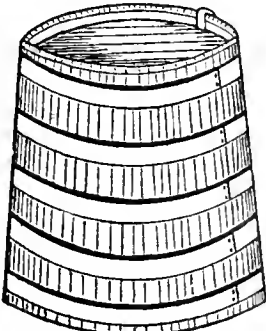
Send for pamphlet and list of questions.

SAMPLE BOTTLE FREE.

Will be sent to any one applying by letter stating symptoms, sex and age. Strict Secrecy in regard to all business transactions.

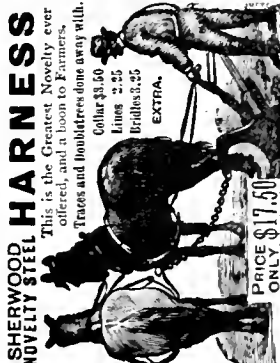
DR. MINTIE'S KIDNEY REMEDY NEPHRETICUM, cures all kinds of Kidney and Bladder Complaints, Gonorrhea, Gleet, Leucorrhoea, etc. For sale by all Druggists; \$1 a bottle, 6 bottles for \$5.

DR. MINTIE'S DANDELION PILLS are the best and cheapest **DYSPEPSIA** and **BILIOUS** cure in the market. For sale by all Druggists.

REDWOOD TANKS**F. KORBEL & BROS.**

727 BRYANT ST., S. F.,

Or at NORTH FORK MILL, Humboldt Co., Cal.



WE PAY THE FREIGHT
This is the Greatest Novelty ever offered, and it is to Farmers, Traders and Dealers done away with.
Collar \$3.50
Lines 2.25
Bridles 3.25
EXTRA.
PRICE \$17.50
ONLY ONE HUNDRED
TRUMAN, ISHAM & HOOKER, San Francisco.
IF NOT SATISFACTORY WE PAY THE FREIGHT

J. N. KNOWLES, MANAGER

EDWIN L. GRIFFITH, SECRETARY

ARCTIC OIL WORKS.

MANUFACTURERS OF

Sperm Whale, Elephant and Fish Oils, Skid Grease,

WHALE OIL SOAP.

ESPECIALLY ADAPTED FOR VINEYARDS AND FRUIT ORCHARDS.

OFFICE—25 CALIFORNIA STREET, S. F., Cal.

EL PINAL VINEYARD,

Stockton, Cal.

Cuttings and Vines For Sale of the following varieties:

PETIT BOUSCHET, MONDEUSE, VERDOT, ALICANTE BOUSCHET, BOAL CABERNET FRANC, MALBECK, CABERNET SAUVIGNON, MANTUO DE PILAS, MANTUO CASTILLANO, PEDRO XIMENEZ, MALMSEY, LENOIR PALOMINO, VERDELHO, TANNAT, PERUÑO, VEGA.

And other recently imported varieties, including Tr. Port and Sherry varieties from Spain and Portugal.

GEO. WEST, Stockton, Cal.

TO CLARIFY WINES.

(BOTH WHITE AND RED)

WAHL BROS.**GRANULATED ISINGLASS**

HAS NO EQUAL.

It is SUPERIOR and CHEAPER than any other ISINGLASS in the Market.

Try It. Send for Sample.

JOHN T. CUTTING & CO., Agents.,

23 CALIFORNIA STREET,

San Francisco.

CLARIFYING AND PRESERVING WINES.

The undersigned having been appointed Sole Agents on the Pacific Coast by Messrs. A. BOAKE & CO. Stratford, Eng., for their renowned

LIQUID ALBUMENS,

Be to call the attention of Wine Growers and Wine Merchants to the following articles, the superior merit of which has been confirmed by Silver Medals, the highest awards given at the International Exhibition of Paris 1875, Bordeaux 1882, and Amsterdam 1883, viz:

**LIQUID ALBUMEN FOR RED WINES,**

Claret, Burgundy and Port.

**LIQUID ALBUMEN FOR WHITE WINES,**

Hook, Sauternes, Sherry and Madeira, also for distilled liquors; Whisky, Gin, etc., etc.

**WINE PRESERVER,**

For Preserving the Brilliance of the wines.

**WINE CORRECTOR,**

For Correcting the Roughness of Young Wines.

**WINE RESTORER,**

For Restoring Badly Made or Badly Treated, Hush and Tart Wines.

A trial according to directions will prove the superior qualities of these fluids. For sale in quantities to suit by

CHARLES MEINECKE & CO., Sole Agents,**314 SACRAMENTO STREET, SAN FRANCISCO.****The Contest Settled.**

The Documents Speak For Themselves.

Below We Publish the Awards as Given, Diploma, Gold Medal and Special Mention.

HIGHEST AWARD

-- AT THE --

New Orleans Exposition

-- TO THE --

ANTISELL PIANOS

-- OF --

SAN FRANCISCO, CAL.

IT WILL INTEREST THE MUSICAL PUBLIC AND persons interested in the purchase of Pianos to read the following Jury's award and congratulation of the United States Commissioners at the New Orleans Exposition to the T. M. Antisell Piano Company of San Francisco, Cal.

THE WORLD'S INDUSTRIAL AND COTTON CENTENNIAL EXPOSITION, NEW ORLEANS, MAY 29, 1885.

MESSRS. T. M. ANTISELL PIANO CO.—GENTLEMEN: At the closing of the World's Industrial and Cotton Centennial Exposition, allow us to congratulate you on your success in being awarded the highest award of merit for your Pianos over all American and foreign exhibitors. That a California manufacturer should win the first prize for the Best Piano in the World we consider well worthy of mention by United States Commissioners of this Exposition.

Frank Bacon, Pres., Ed. U. S. Com., Kansas.
George L. Shoup, " " Idaho.
Robt. W. Furnas, " " Nebraska.
John C. Keffeler, " " Ohio.
R. E. Fanning, United States Comr., Dakota.
John S. Harris, " " Montana.
E. W. Allen, " " Oregon.
F. M. Murphy, " " Arizona.
F. W. Noble, " " Michigan.
W. H. Sebring, " " Florida.
P. M. Wilson, " " N. Carolina.
J. C. Truman, " " New York.
E. Spencer Pratt, " " Alabama.
E. J. Koche, " " S. Carolina.
C. L. Barrow, " " Louisiana.
Henry Morrell, " " Wyoming.
P. Langhammer, " " New Mexico.

THE WORLD'S INDUSTRIAL AND COTTON CENTENNIAL EXPOSITION, NEW ORLEANS.

JURY REPORT

Application No. Special.
Group. Class.

COMPETITION.

The undersigned jurors in the above entitled class having carefully examined the exhibit made by the ANTISELL PIANO COMPANY OF SAN FRANCISCO, CAL., and all competing exhibits, concur in recommending the award of a FIRST-CLASS MEDAL AND DIPLOMA, THE HIGHEST AWARD OF MERIT FOR PIANO EXHIBIT FOR STRENGTH, DURABILITY, EXCELLENCE OF TONE, AND FOR THE SUPERIOR QUALITY OF LUMBER USED IN THE CONSTRUCTION.

Dated this 27th day of May, 1885.

JAS. C. TRUMAN, Juror.
FRANK BACON, Juror.
GEORGE L. SHOUP, Juror.

It will be observed that the President of the United States, General of Commissioners, Governor Bacon of Kansas, was also a member of the jury that gave the Antisell piano award; also Colonel Truman of New York and Colonel Shoup of Idaho. These gentlemen not only signed our jury report, but also the special mention. We thus give positive proof of our victory. Four other awards are claimed by piano manufacturers, but we have never seen any evidence of their premiums, not even to the value of a leather medal—simply their own assertion. False telegrams and publications from New York won't humbug Californians. It won't do to say that the Antisell pianos were not entered for exhibition or competition. No piano could be got into the exhibition unless regularly entered. New York manufacturers are trying to break down our award as they don't like to see San Francisco carry off the honors.

T. M. Antisell Piano Co.

24 to 28 ELLIS ST., S. F.

HONOLULU CASTLE & COOKE,

SHIPPING AND

COMMISSION MERCHANTS

Honolulu,

Hawaii Islands

AGENTS FOR

THE KOHALA SUGAR CO.,

THE HAIKU SUGAR CO.,

THE PAPAIOU SUGAR PLANTATION

THE WAIALUA SUGAR PLANTATION

THE PAIA PLANTATION

A. H. SMITH & CO.,

THE N. E. M. LIFE INSURANCE

CO. BOSTON,

THE UNION INSURANCE CO.

OF SAN FRANCISCO.

THE GEO. F. BLAKE MFG CO.,

STEAM AND VACUUM PUMPS,

D. M. WESTON'S CENTRIFUGAL

MACHINES.

WM. G. IRWIN & CO.

SUGAR FACTORS AND

COMMISSION AGENTS

Honolulu, H. I.

—AGENTS FOR—

HAHALAU PLANTATION.....Hawaii

NAALEHU PLANTATION.....Hawaii

HONUAPO PLANTATION.....Hawaii

HILEA PLANTATION.....Hawaii

STAR MILLS.....Hawaii

HAWAIIAN COM'L & SUGAR CO.....Maui

MAKEE PLANTATION.....Maui

WAIHEE PLANTATION.....Maui

MAKEE SUGAR CO.....Kaua

KEALIA PLANTATION.....Kaua

Agents for the

OCEANIC STEAMSHIP COMPANY.

WINE WANTED.

Having more orders than we can fill, we offer our services as

BROKERS

—TO—

PRODUCERS ONLY.

CORDELIA WINE COMPANY,

969 Mission Street,

San Francisco.

ANGLO - NEVADA Assurance Corporation

—OF—

SAN FRANCISCO, CAL.

FIRE and MARINE.

Subscribed Capital \$2,000,000.

OFFICE: 410 PINE ST.

DIRECTORS:

LOUIS SLOSS, J. W. MACRAY,
J. B. HAGGIN, W. F. WHITTIER,
J. ROSENFIELD, E. E. EYRE,
J. L. FLOOD, E. L. GRIFFITH,
G. L. BRANDER, J. GREENEBAUM,
W. H. DIMOND.

This Corporation is now prepared to receive applications for Fire and Marine Insurance

G. L. BRANDER.....President
J. L. FLOOD.....Vice-President
C. P. FARNFIELD.....Secretary
J. S. ANGUS.....Assistant Manager

Bankers—The Nevada Bank of San Francisco.



THE SOUTHERN PACIFIC CO.,

Respectfully invites the attention of Tourists and Pleasure Seekers to the 31 Pacific Full Lengths offered by the Northern Division of its line for traveling the principal

SUMMER AND WINTER RESORTS OF CALIFORNIA

WITH SPEED, SAFETY AND COMFORT.

Pescadero, Menlo Park, Santa Clara, San Jose, Madame Mineral Springs, Gilroy Hot Springs.

-MONTEREY-

THE QUEEN OF AMERICAN WATERING PLACES

Camp Goodall, Aptos, Loma Prieta, Monte Vista, New Brighton, Sequel, Camp Capitola, and

SANTA CRUZ.

PARAISO HOT SPRING.

EL PASO DE ROBLES

HOT AND COLD SULPHUR SPRINGS.

And the only Natural Mud Baths in the World.

This Road runs through one of the richest and most fertile sections of California, and is the only line traversing the famous Santa Clara Valley, celebrated for its productivity, and the picturesque and park-like character of its scenery; as also the beautiful San Benito, Pajaro and Salinas Valleys, the most flourishing agricultural sections of the Pacific Coast.

Along the entire route of the "Northern Division" the tourist will meet with a succession of extensive Farms, Delightful Suburban Homes, Beautiful Gardens, Immortal Orchards and Vineyards, and Luxuriant Fields of Grain, indeed a continuous panorama of enchanting Mountain, Valley and Coast scenery is presented to the view.

Characteristics of this Line:

GOOD ROAD-BED STEEL RAILS, ELEGANT CARS,
LOW RATES, FAST TIME, FINE SCENERY.

Ticket Offices—Passenger Depot, Townsend street, Valencia St. station, and No. 613 Market street, Grand Hotel.

A. C. BASSETT, H. R. JUDAH,
Superintendent, Asst. Pass. and Tkt. Agt.

S. P. COMPANY.

QUICK TIME AND CHEAP FARES

To Eastern and European Cities

Via the Great Trans-continental All Rail Routes.

— OF THE —

SOUTHERN PACIFIC COMPANY.

(PACIFIC SYSTEM)

Daily Express and Emigrant Trains make prompt connections with the several Railway Lines in the East.

CONNECTING AT

NEW YORK AND NEW ORLEANS

with the several Steamer Lines to

ALL EUROPEAN PORTS.

PULLMAN PALACE SLEEPING CARS

attached to Overland Express Trains.

THIRD-CLASS SLEEPING CARS

are run daily with Overland Emigrant Trains.

No additional charge for Berths in Third-class Cars.

25¢ Tickets sold, sleeping-car Berths secured, and other information given upon application at the Company's Offices, where passengers calling in person can secure choice of routes, etc.

Railroad Lands

FOR SALE ON REASONABLE TERMS,

Apply to, or address,

W. H. MILLS, JEROME MADDEN,
Land Agent, Land Agent,
C. P. R. R. SAN FRANCISCO, S. P. R. R. SAN FRANCISCO

A. N. TOWNE, T. H. GOODMAN,
General Manager, Gen. Pass. & Tkt. Agt.
SAN FRANCISCO, CAL.

REWARD! OF \$10-\$50 TO EVERY PERSON sending us valuable information of school vacancies and needs. No trouble or expense. Send stamp for circulars to— CHICAGO SCHOOL AGENCY, 155 South Clark Street, Chicago, Ill. N. B. We want all kinds of Teachers for Schools and Families

SHIPPING.

OCEANIC STEAMSHIP COMPANY.

Carrying the United States, Hawaiian and Colonial mails for

HONOLULU,

AUCKLAND,

and SYDNEY

WITHOUT CHANGE.

The splendid new 3,000-ton Steamship



MARIPOSA

Will leave the Company's wharf, corner Stewart and Folsom streets.

SATURDAY, JUNE 5th at 2 P. M.
Or immediately on arrival of the English mails.

FOR HONOLULU AND RETURN

The Steamer

ZEALANDIA.....Tuesday June 1st.

For freight or passage apply at office, 327 Market St.
JOHN D. SPECKEL & BROS.,
General Agents.

OCCIDENTAL & ORIENTAL STEAMSHIP COMPANY.

for JAPAN and CHINA.

Steamers leave Wharf, corner First and Brannan sts., at 2 o'clock, P. M., for

YOKOHAMA and HONGKONG.

TOUCHING AT HONOLULU,

And Connecting at Yokohama with steamers for Shanghai.

1886.

STEAMER. FROM SAN FRANCISCO.
SAN PABLO.....TUESDAY, JUNE 1st
OCEANIC.....TUESDAY, JUNE 22d

EXCURSION TICKETS to Yokohama and return at reduced rates.

Cabin plans on exhibition and Passage Tickets for sale at C. P. R. Company's General Offices, Room 74, corner Fourth and Townsend streets.

For freight apply to GEO. H. RICE, Freight Agent, at the Pacific Mail Steamship Company's Wharf, or at No. 202 Market street, Union Block.

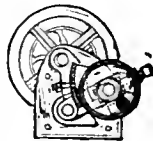
T. H. GOODMAN, Gen. Passenger Agent.
LELAND STANFORD, President

QUARTZ BREAKERS

—AND—

PULVERIZERS COMBINED!

TO RUN BY HAND OR POWER.



MINING MACHINERY OF EVERY DESCRIPTION.

DRAWINGS, PLANS AND SPECIFICATIONS.

E. I. NICHOLS,

316 Mission Street, San Francisco.

FREDK WM. LUTTGEN,

COMMISSION MERCHANT,

(P. O. BOX 829.) 51 Warren St., New York.

Solicits consignments of California Produce, and orders for the purchase of Merchandise, generally.
Eastern Agent for Eclipse Champagne.

JAMES HUNTER

GAUGER OF WINES AND SPIRITS.

(Established 1851.)

OFFICE—323 FRONT STREET,

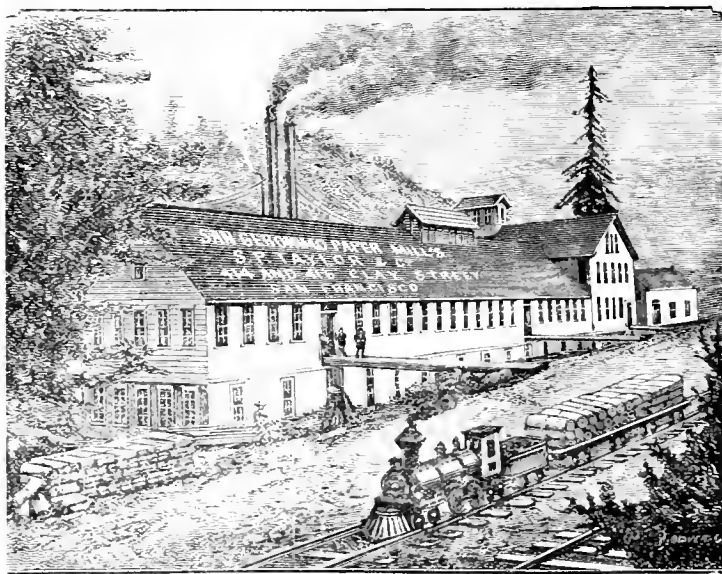
San Francisco.

BONESTELL
AND CO.
PAPER WAREHOUSE
IMPORTERS OF ALL KINDS OF
Printing and Wrapping Papers.
401 & 403 SANSONE ST., S. F.

1856. PAPER. 1886.

S. P. TAYLOR & CO.

Manufacturers of and Dealers in Paper of all kinds.



Book, News, Manila, Hardware, Straw and Tissue

PAPERS.

Paper Bags, Twines, Etc., Etc.
PRINTED WRAPPERS A SPECIALTY.

Proprietors Pioneer and San Geronimo Mills. Agents for South Coast (Straw) Mills.

114 and 416 CLAY ST., SAN FRANCISCO.

THE SAN FRANCISCO MERCHANT.

THE ONLY VITICULTURAL PAPER IN THE STATE.

Devoted to Viticulture, Olive Culture, and other Productions, Manufactures and Commerce of the Pacific Coast.

VOL. XVI, NO. 4.

SAN FRANCISCO, JUNE 4, 1886.

PRICE 15 CENTS

THE TAX ON SWEET WINES.

Argument in Support of the Substitute Bill, Presented by Hon. W. W. Morrow, Entitled "A Bill in Relation to the Production of Pure Sweet Wines, and to Permit the Exportation of Fortified Wines Free From Internal Revenue Tax, and to Prevent Frauds in Connection Therewith."

Before the Honorable Committee on Ways and Means of the House of Representatives.

WASHINGTON, D. C., May 13, 1886.

To the Honorable Members of the Ways and Means Committee, House of Representatives: The vine growers of California, petitioners to Congress, for relief from exactions of law, which obstruct their industrial progress, do respectfully submit the following brief in support of the substitute bill presented by Hon. W. W. Morrow, relating to the use of wine spirits in fortifying wines, entitled "A bill in relation to the production of pure sweet wines and to permit the exportation of fortified wines free from Internal Revenue tax, and to prevent frauds in connection therewith."

This substitute which has been presented by Mr. Morrow satisfies the Secretary of the Treasury and the Commissioner of Internal Revenue in all respects so far as provisions to prevent fraud are devised, and it is therefore not subject to the objections made to the preceding bills. The only question raised relates now to public policy involved. The wealth of the people is the wealth of the Government; the sufferings of industry cannot fail to be felt in the public treasury; and we believe that we show more good reasons why our industry should be cut loose from its bonds than can be urged in favor of the tax. The present tax amounts to nearly fifty per cent of the first cost of making sweet wines. Besides restraining our commerce, it is a grievous burden to the wine maker who at the time of wine making is laboring under great expense, and who must wait sometimes for years to mature his products. The wine maker is virtually subjected to a forced loan without any guaranty of repayment through the sales of his wines.

As to the legitimate uses of wine spirits in the treatment of certain kinds of wines, we refer to the accompanying printed copy of correspondence with the Honorable Commissioner of Internal Revenue.

The production of sweet wines must, more or less, continue to be a factor in viticultural industry. Popular taste demands for use at table, as dessert wines, certain grades of sweet wines; the medical profession also continues to require a certain supply of pure sweet wines, properly matured by age and free from objectionable spirits, in cases of convalescence, physical weakness, and especially, in the treatment of disease peculiar to old age; foreign markets demand also such wines for whatever uses there may be, and especially in certain climates where strength and body is demanded in beverages or medicinal wines. Sweet wines play also an important role in culinary operations.

In many parts of California grapes acquire naturally a very great saccharine strength, which is also more or less controlled by the selection of the varieties of vines best suited for making sweet wines. Such grapes are frequently suitable only for the production of sweet wines, because an excess of sugar in natural juice cannot be fermented out, but remains in part after the fermentation is completed so far as nature will permit. In such cases the vine-grower is wholly dependent upon a market for sweet wines for a profitable result of his industry. Should this market fail, he will be forced to uproot his vines, which have been grown after years of patient waiting, or to graft them over to other varieties, which operation is most costly and entails further long patient waiting without revenue, or to convert them by distillation into brandy. In many cases, choice varieties have been imported and propagated, intended specially for high grade sweet wines, such as the most celebrated of Portugal, Spain and Madeira, such varieties, however, producing small vintages, valuable mainly on account of quality, which could not be converted profitably into brandy. Inspired by the promises of a bountiful nature and the experience of other countries, many of our growers have aspired even to achieve for America renown as well as commercial standing in foreign markets. No country in the world has as many natural advantages for the culture of the vine as California, where millions of acres can be selected for this industry. The lands suited to the purpose are, with few exceptions, valuable only for viticulture. The progress of agricultural development teaches us that in future we must look to

the vine for our largest support. We have now about one hundred and fifty thousand acres planted to vines, and millions more that depend in value upon the successful results of those so planted. Of these planted vines about one-third are in full bearing; but the rapid increase in vintages, which will notably begin this year and continue for the future, is a cause for popular anxiety, because heretofore we have sought only the domestic markets for an outlet for our products. It is not in a spirit of idle boasting that we call the attention of Congress to the fact that we must after this year seek foreign markets to dispose of our surplus. That such markets are open to us is easily made apparent, when we cite the quantities of wines consumed by countries, which cultivate no vines, and when we point to France where now about one hundred and fifty million gallons are imported in excess of exports. Labor is very cheap in those producing countries, which will be our competitors, but nature is somewhat more bountiful with us; hence, we feel confident, that without obstacles caused by our own laws, we may hope to command our share of foreign favor without loss to producers, although it may be without the profit that we hope to obtain in the domestic markets. We look to foreign markets, as do all countries, as a means for disposing of surplus stocks. Within one generation we believe that the civilizing influence of the vine will secure for us in this country a market for at least one thousand million gallons of wine, a sum which may seem large in the aggregate, but which in reality is only double the present consumption of beer, and less than the present wine consumption of France, in which country there is a much less population. The civilized habit of drinking wine at meals cannot be formed in a day, or a year, or in a few years; hence, as we progress, we expect frequent over-production, so far as domestic markets are concerned. Our present appeal largely rests upon this necessity of exportation, and we ask the government to relieve our industry of those burdens of taxation, which positively prevent competition with foreign products in foreign markets.

In domestic markets we compete on unfair terms with imported sweet wines, which have not been taxed for the spirits contained in them. Importers do not pay any taxes; on the contrary, they are permitted to retain their goods in bond until sold, the

limit of bonding being sufficient for that purpose. The producer of American sweet wines must pay the Internal Revenue tax on the spirits used at the time of wine making; he must then, in order to offer choice articles for consumption, hold them, or, what is equivalent to the same, the dealer who buys them must do so, subject to shrinkage, accidental loss, insurance, interest on capital, etc., until matured. The great market for California wines is in the Atlantic States, to reach which the cost of transportation is many times greater than it is from Spain, Portugal and France. Other countries make a distinction between fortified wines (those which, such as Port, Sherry, Madeira, Malaga, etc., contain distilled spirits to preserve their sweetness) and ordinary natural wines, such as claret, hocks, etc., and impose upon the former a higher rate of duty. The British duty on fortified wines, notwithstanding there are no local industries affected by the same, is greater than that of this country, and France taxes foreign wines containing more than fifteen per cent of alcohol, double the tax on alcohol for each degree above fifteen per cent. So far as ordinary light wines are concerned, the present tariff serves only to protect this country from a flood of spurious imitated wines, which might be introduced on account of skill in preparing the same, extreme cheapness and popular fondness for foreign goods. It does not in the least interfere with the importation of fine wines, according to the fashion of markets or the tastes of consumers. It would be impracticable to devise laws to prevent the importation of skillfully prepared imitated wines without such a tariff, because it is impossible for this Government to supervise the processes of manufacture in foreign countries. All that can practically be done to protect our own people against such goods is to maintain the tariff sufficiently high to destroy the profit of such commerce, and to guard, by analytical work, against certain known adulterations, injurious to the public health, which are easily recognized. The tariff does not tax the consumers of domestic wines, but it enables our producers to undersell any spurious wines of foreign manufacture. In proof of this, I need only to refer to the current prices of our wines, which are of sufficient quality to be used commercially by jobbers under foreign labels—a practice not gratifying to our pride, but

unavoidable at present so long as our people prefer to pay high prices for foreign wines, and so long as retailers prefer to cater to such foolish prejudice. The best cellars at first hands in California, containing good grades of clarets, hocks, etc., sell without cooerage during the winter following the vintage, if of prime quality, at from twenty-five to thirty-five cents per gallon to wholesale dealers. Such wines at one year old, with cooerage, vary, in the hands of dealers for the trade, in car load lots, from forty-five to sixty cents per gallon, with exceptions in favor of certain rare selected wines at from sixty to eighty cents per gallon. Rare wines of very fine quality may be worth to the trade even one dollar per gallon; but the greater part of the vintage goes with cooerage, free on board the cars, including mercantile profits, at prices from forty to sixty cents per gallon. Fifteen cents is the average cost for car-load lots in transportation to Atlantic States; hence it is apparent that the tariff is not a tax on the consumers of domestic wines. That it is not oppressive on consumers of good foreign wines is as easily demonstrated. The ordinary "pint" bottle, of which there are ten to the gallon, pays for its contents five cents duty. Should this be reduced, how much advantage would the consumer receive, such wines being sold by retailers at prices too well known? The simple truth is, that the tariff operates to protect both the domestic producer and the honest importer against spurious trash and tends, so far as it can, to preserve popular taste. It cannot be pretended that there are any foreign supplies of sound, cheap, wholesome wines for this market, when France needs to import one hundred and fifty million gallons in excess of exportation; this country must procure its supply of such wines by home production, and consumers can afford to pay extra for the privilege of drinking exceptional luxuries.

The foregoing discussion is presented in order to show that the present tariff on still wines is in no respect oppressive to the people, but, on the contrary, is a real benefit and a protection against spurious foreign wines; it is, however, no protection to the producer of domestic sweet wines, who is compelled to pay an Internal Revenue tax on the spirits used in preserving them in the sense that production is usually understood.

It is our intention to be wholly frank in treating this subject before your Honorable Committee. In this sense we present the following facts:

No wine drinker, no physician prescribing sweet wines, expects to find whisky or grain spirits in sweet wine.

No spirits, excepting those distilled from wines, are suitable for the fortification of sweet wines.

No spirits, distilled from wines, can be procured, tax paid, as cheaply as grain spirits.

No spirits from wine, excepting those of good quality, are suitable for fortifying wines.

Hence, the tax on spirits used in preparing sweet wines operates to demoralize wine production by offering a temptation to the use of the cheaper articles, as production is controlled by competition in trade prices. The cheapest good brandy, tax paid, suitable to fortify good wines costs at least two dollars per proof gallon, while, according to the place of operation, grain alcohol sells at from \$1.03 to \$1.15 per proof gallon. Re-

moving the tax from wine spirits for fortifying wines will place the cost only about equal with that of grain alcohol, but the quality of goods on the market will materially improve, and our industry will gain in favor.

Assuming that the average quantity of distilled spirits added to sweet wines is equal to ten per cent. of their volume reckoned as alcoholic strength equivalent to twenty per cent. of proof spirits, we have the cost of fortifying good sweet wine with good wine spirits represented by at least forty cents per gallon. Add to this, thirty cents for the wine, five cents for cooerage, five cents for wholesale dealers' profits, five cents for shrinkage, etc., during one year, and fifteen cents for transportation to Eastern markets, and we have for car-load lots to wholesale trade, a price of one dollar per gallon. Such wines compete against foreign sweet wines, held in bond without tax until sold, which after payment of duty are sold at from eighty-five cents to one dollar per gallon, with popular favor for the foreign brands. It is true that our producers actually undersell these prices and fairly compete in the market, but this is due to the fact that sweet wine is frequently a necessity of the vineyard and must be sold at whatever price the dealer can afford to pay, and also because competition in prices has compelled producers to use cheap grain alcohols in fortification instead of pure wine spirits. If your committee will order such an inquiry, you will find it to be true that sweet wines are not made in California, when dry wines of good quality can be produced from the same grapes, because sweet wine-making is really unprofitable except to those who have established special demand for these brands. Many thousands of gallons of sweet wines were made last year in California, because the intense heat of the summer caused great and unexpected increase of sugar in the grape juice, which prevented their use for other wines. Such rich wines, which would be the pride of certain countries, were actually produced by our growers at a loss, owing to the operation of our laws.

For fair competition with foreign goods in our domestic markets, we can reasonably claim, therefore, that we must either be relieved by abatement of the Internal Revenue tax, or by an increase in the tariff on fortified wines.

In our home market, however, we suffer a serious competition with popular domestic goods, made to order, as the market creates demands, by the addition of cheap sugar to common dry wines, subsequently fortified with cheap grain alcohol. Until popular taste is sufficiently educated, this competition largely deprives us of a home market. More than this, however, are we interfered with by absolutely spurious compounds, more or less encouraged by the aid of imported so-called fruit juices, which are, in fact, alcoholic compounds, admitted at a ridiculously low *ad valorem* duty.

If we are relieved from the tax on wine spirits used in making sweet wines, we believe that all the genuine sweet wines of the country will be materially improved in quality, and that we may fairly compete against foreign products, although without that measure of protection accorded to other industries.

For the possibility of a foreign market, however, we must look solely to the relief asked for. The systems of taxation are such in other countries that the sweet wines with which we must compete contain no element of cost by reason of tax on

spirits; with us the Internal Revenue tax represents about twenty cents per gallon. Sweet wines are put on board vessels in Europe at about forty cents per gallon, with easier transportation than we can have from California. Hence, if we must pay this tax in preparing our wines, we can get only twenty cents net, from which must be deducted mercantile profits. Remove this tax and we can in a very few years compete against the world, because we shall avail ourselves for such wines of ocean transit. We do not pretend, however, that such competition will satisfy our reasonable hopes. In the American market, if we can obtain ten cents more per gallon for wholesale lots, we shall enable our producers to exist on a par, as to the enjoyment of civilized comforts of life, with the producers in other industries. Of course, we are not referring, in such statements, to producers of extraordinarily fine goods, which will command their own prices, according to popular appreciation, but to the ordinary good stocks of vineyards, such as are in common use.

Our demand for relief from this oppressive tax is based therefore on our presentation of facts relating to the necessity of home as well as foreign markets, and we trust that our expectation of profits may not seem to your committee unreasonable. Access to foreign markets will enable us to live while our home demand is growing; but our increased products will force us either to procure the relief asked, or resort to the means mentioned, distillation, etc., to dispose of our surplus for some time to come. Our necessities are such, therefore, that we cannot fail to appear and reappear as your petitioners, until our demand is granted, or until our properties are destroyed.

In this connection we believe that you will pardon us for suggesting that laws intended for the collection of internal revenue are only excusable when public necessity requires the same, and care should be taken to prevent taxation from diminishing industrial activity. This statement will not conflict with varying theories as to what system may best conduce towards such prosperity. Any law, imposing taxes, which cripples the producer in his conflict with foreign goods in his home market and which absolutely prohibits exportation, would find no defenders in this country. We believe that we have shown that such a law oppresses our sweet wine-makers, and that we have good reason for believing that our petition will not be refused. If it should be shown that to grant our demand may cause some loss of public revenue, we may reply that this revenue is not required by the Government, and even more forcible, that if it were required, the Government should obtain what it needs without restraining the industries of the country.

As against the statement, however, that may be made concerning such loss of revenue, we shall call your attention to the fact that, under the operation of the present law, only a comparatively small quantity of sweet wines will be made and practically none for export; hence the apparent loss of revenue will be small. In California we made last year not exceeding six hundred thousand gallons of sweet wine; in other States less. The whole amount of spirits used in such wines did not exceed two hundred thousand gallons at proof, representing a tax of \$180,000. Owing to the cheapness of grain spirits in Eastern states, some producers of wines, sweetened with sugar, may still prefer to use such spirits, so that

we may estimate this apparent loss of revenue at less than the amount named. If the relief asked for should be granted, we shall largely increase our sweet wine products for exportation and there will be no loss to the revenue, because every gallon of spirits needed for home consumption will be produced and will pay tax as such. The stimulation that industry will receive and the increased markets that will be made, growing out of prosperity, will more than compensate for the remission of this tax, which no one can pretend to be necessary to the Government.

In asking this privilege of free wine spirits, we desire that every precaution of law may be devised to prevent fraud and the use of such spirits in any wines excepting those which are in need of the same; also, that it shall not be extended to any spirits except those of the grape. Free grain spirits for preparing any wines would be fatal to our industry, and the addition of any spirits to ordinary dry wines would be inexcusable for domestic use and would assist only those who compound imitations to deceive the public.

It is true that most of the sweet wines imported are in these times fortified with cheap grain, potato, or beet-root spirits. This practice undoubtedly is the chief cause of the failing popularity of such wines in England and elsewhere, and accounts for the preference now given by the medical profession to pure wines of California, which have been preserved with spirits distilled from grape juice. Wine production in Europe has in recent years been unable to supply demand, and distillation of wine has therefore been practically abandoned. The vast areas of vines in the south of France, which formerly were devoted to brandy distillation, have been swept away by vine diseases, while at the same time the building of railroads and expansion of commerce have been increasing demand. This is our opportunity, and this Congress may say whether we shall attempt to outrival in the quality of our goods all other countries, which we cannot do if competition in prices forces the use of cheap grain alcohol. For home consumption in France, the people are protected against German potato spirits by a law forbidding the use of any foreign spirits in fortifying French wines, declaring that whenever such foreign spirits are used, the wines fortified *must be exported*.

In exportation we must be governed by the demands of foreign markets. Therefore we ask the privilege of fortification, with free wine spirits, when exporting, for any kind of wines; provided, that such wines may not return without payment of the tax. This privilege cannot be limited, under our present system of collecting Internal Revenue, so far as sweet wines are concerned, to exportation; because when such wines are made they must be fortified at once, and it cannot be determined at such time whether their ultimate destination will be a home or a foreign market. Such wines contain spirit by natural fermentation as well as the addition intended to preserve their sweetness; it would therefore be impossible to establish a rule for drawbacks in case of exportation, unless all sweet wines were made under supervision of store-keepers, with stamps, to indicate the amount of spirits added, etc., all of which would cost the Government vastly more than the amount of the tax sought to be remitted and would place such obstructions to producers as to add to expenses and prevent thereby successful competition with foreign goods.

We do not understand that there is any objection to our demand on the part of the Government, except that this is not a revenue measure. In this respect, with proper restrictions, we should be on a par with the vinegar-makers, who are permitted to use spirits free of tax. If the Government needs this small revenue, which stands in the way of a possible large industry, we should much prefer that our demand be granted and that the deficiency be made up by other means, even though it should be necessary to increase the tax on distilled spirits. Our own vineyards produce very largely of brandy, although we desire to distill as little as possible. Every obstacle thrown in the way of the use of our wines will force distillation, from which, however, the Government will gain nothing, as all excesses over domestic demand will be exported, such exportation, however, being unprofitable to producers and a drain upon the material wealth of the people.

As to the specific provisions of the bill in question, we have to say that the wine producers of California will be satisfied with limitations of the use of free wine spirits to those who distill, thereby simplifying the work of the Government in guarding its revenues; but, in deference to the demands of many Eastern sweet wine makers, we have no objection to urge against the withdrawal from bond of wine spirits for sweet wines, provided the provisions of this proposed bill to prevent fraud are retained and the limitation to places of original production is preserved.

Should our demand be refused, we shall look upon the Government as an oppressor, forbidding the expansion of our industry, and must necessarily petition for an increase in the tariff on fortified wines as a means to fair competition in our limited home market. We have no reason to believe that any just demand will be ignored by your Honorable Committee. Pending this action, we are preparing for the vintage of this year; delay in action seriously embarrasses our plans for the future, and may cause us to lose one year in our efforts to provide against the dangers of over-production.

As to the period during which the use of free wine spirits is asked, our California producers are satisfied to be limited to the months during which our vintages occur—from the first of August to the first of January. Eastern wine makers sweeten their wines after they are first made, and then fortify; hence they demand other months, and desire from January first until May first. To any of these propositions we make no objection. As we do not feel prepared to antagonize the use of pure sugar in wine making, as practiced in Eastern States, we shall not, in this instance, raise any question as to their demand for wine spirits in fortifying sweet wines, however galling it may be to the pride of our State, where all wines may be made from the fruit of our vines without the aid of any foreign substance. We believe that Eastern wine makers will soon be supplied with condensed grape juice, containing sixty to eighty per cent of natural grape sugar, which will obviate all necessity for the use of the other sugars and enable them to make absolutely and technically pure sweet wines, without which they can never pretend to seek foreign markets where tastes for pure sweet wines have been acquired.

CHAS. A. WETMORE,
Chief Executive Officer, State Viticultural Commission of California.

G. W. WILSON,
For the Committee of Sweet Wine Makers of California.

WHALE-OIL SOAP INSECTICIDE WASHES.

Among the ingredients of insecticide washes intended for summer use, or on evergreen trees, whale oil soap is one of those most commonly employed, as well as most generally approved, in California. It is quite effective in numerous cases, even when used by itself; but it is most commonly combined with, or made the vehicle for, other insecticide substances. Instead, common soft soap is also employed, but its chief merit lies in the fact that it, in common with other soapy compounds, serves to conserve the efficacy and maintain the action of other insecticides for which it serves as a vehicle. This it does by virtue of its property of promptly wetting even hairy, greasy or polished surfaces (whether of leaves or insects), from which simple water would rebound or gather in inflexible droplets; partly because it remains more or less moist, and in that condition forms a soft, clinging varnish, under which the action of even volatile agents (such as kerosene or the extract or powder of "buhach") can continue for some time without much wasting of their strength into the surrounding air, by evaporation.

But whale-oil soap possesses the additional advantage of having, within itself, special odorous substances of insecticide qualities, which impart to crude whale-oil its intensely disagreeable odor. From these it is partly freed in the refining process, by the action of a certain proportion of caustic alkali (mostly soda), which takes possession preferably of the odorous compounds of the crude oil, together with a certain proportion of the inodorous fat oil. This soapy mixture constitutes the "foots" of the refineries, and is far more energetic in its insecticide effect than soap made from the whole of the crude oil, which contains a relatively much smaller proportion of the evil-smelling substances.

This fact alone explains much of the diversity of opinion that has arisen in the matter of proportioning the strength of the soap washes to the desired effect. For not only has the soap made from the whole oil been supplied by some manufacturers, but those using the washes have, in many instances, made the soap themselves, in accordance with the common process of making soft soap at home.

Matthew Cooke, in his excellent book on the repression of injurious insects, prescribes that one pound of the soap dissolved in one gallon of water shall constitute the basis of the washes. Some have found this wash unnecessarily strong while others have found it too weak to accomplish anything.

In a bulletin issued in February last (No. 52) were given the analyses of sundry brands of "lye," from which it appeared that they differed in strength as much as 500 per cent, so that a person using the proportion prescribed for one kind, would, in using the other, make his wash too strong or too weak, as the case might be, to that precise extent; either wasting his work or perhaps scorching his trees.

An examination of the several brands of whale-oil soaps in the San Francisco market has revealed similar differences between them. In this case the inert substance present to excess in some samples is simply water, which was found to range in different preparations sold at the same price, from 21 to 82½ per cent. Curiously enough, the most highly watered article was among the most saleable; the reason being probably

that while the article having nearly 80 per cent of soap and 20 of water is somewhat difficult to dissolve and has to be boiled, the one in which these proportions are reversed can be made into a wash by simply stirring it into cold water. But apart from the inconvenience, the one is actually and indisputably worth four times as much as the other, for the purpose it is intended to subserve; provided that the user will take the trouble to put in the water himself, instead of having it shipped to him from San Francisco.

It is no wonder that the experience of fruit growers differs widely as to the efficacy of whale-oil soap in ridding their trees of insect pests.

From a comparative examination of the samples on hand, it appears that a whale-oil soap containing about 50 per cent of water is as readily dissolved as any moderately energetic fruit grower need desire; and in view of the relatively small weights of invoices usually shipped of this article, I suggest that it would be convenient to users, if all manufacturers would adopt the standard of 50 per cent of dry soap to be contained in whale-oil soap, as offered for sale. There will then be some definite meaning to the prescription of "a pound to the gallon," and disappointments, after the proper use of washes prepared according to the best experience, will cease to occur.

E. W. HILGARD.

Berkeley, May 17th, 1886.

The Arctic Oil Works Soap contains: Dry soap, 79 per cent, Water, 21 per cent.

THE WINE BILLS.

WASHINGTON, May 27th.—Representative Harris of Georgia, reported to-day from the Committee on Ways and Means, one of the bills demanded by the vine growers, permitting the use of grape brandy free of tax in fortifying wines for exportation. The bill taxing bogus wines was not reached to-day in the committee, but is in the hands of Breckinridge of Kentucky, to report for the sub-committee. The friends of these measures, counseled together and considered that it would be best not to attempt a contest in the committee over the demand for free grape spirits in making sweet wine, but to defer action for amendment in the House or Senate. McKinley of Ohio, for the friends of this measure, reserved in committee the right to amend on the floor.

The difficulty with these bills is mainly due to the contest between the revenue reformers. One party, led by Morrison, is endeavoring to reduce the tariff and to maintain internal revenue, and the other, the chiefs of which are Randall and Mr. Kelly, demands the utter annihilation of internal revenue. All bills relating to internal revenue may be amended on the floor, and as Randall recently said, Morrison could not report these wine bills, because they would be made the subject for raising the entire question through amendments. The oleomargarine bill was permitted to come up under an agreement between its friends that it should not be amended by other internal revenue measures. It seems now that these complications are being forced aside and that there is hope of progress. Meanwhile an effort will be made by Senator Stanford, to obtain a consideration of the wine bills in the Senate Finance Committee in advance of action in the House.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

THE NATIONAL GRAPE-GROWER'S CONVENTION.

On the 18th of May a Committee on Organization was elected, consisting of B. F. Clayton, of Florida; A. Russow, of Virginia; A. J. Switzer, of New York; F. Pohndorff, of California; C. G. Frasch, of Virginia; Hon. W. J. Green, of North Carolina; D. Cook, of Missouri.

This committee met to elect an Executive Council of the National Viticultural Association, consisting of Chas. A. Wetmore, as President; B. F. Clayton, as Secretary; and the following members: J. S. Newman, Alabama; L. J. Rose and H. W. Crabb, California; B. H. Young, Kentucky; D. Cook, Missouri; A. W. Pearson, New Jersey; G. E. Dewey, D. Bauder and J. W. Davis, New York; Hon. Wharton J. Green, North Carolina; J. J. Lucas, South Carolina; Geo. W. Campbell, Tennessee; H. L. Lyman, Virginia.

Committee on Exhibits appointed.—Hon. Norman J. Colman, of Missouri; D. Bauder, New York; A. Russow and Oscar Rierson, Virginia; F. Pohndorff and G. Husmann, California; J. J. Lucas, South Carolina; Chr. Xander, District of Columbia; C. G. Frasch, Virginia.

Committee on Resolutions.—H. L. Lyman, A. W. Pearson, Hon. W. J. Green, D. Bauder, F. Pohndorff.

Committee on Order of Business.—B. F. Clayton, C. G. Frasch, A. J. Switzer, Hon. N. I. Coleman, Henry Brown.

At the final session of the Viticultural Convention a resolution was adopted thanking Commissioner Coleman for his courtesy in receiving and aiding the delegates. Also the following:

Resolved, That the vinegrowers of the United States extend their good wishes toward all others engaged in the production of food for the people, and desire for them as well as for themselves protection in the markets of our common country against the swindling devices of impostors, and we welcome the aid which has been brought to our common cause by the dairymen, whose products nourish our children (as do our own, together with theirs), the men and women whose success in life depends largely upon sound and wholesome food and a fair opportunity to participate in honest industry honestly conducted.

Whereas woman, in all ages and times, has been the friend and promoter of all good works calculated to benefit mankind, and has been the patron of husbandry and the companion of man in his endeavors to elevate and ameliorate his condition; and,

Whereas this association has observed with pleasure and pride the efforts of many ladies, both in this city and the states, who have aided in securing the success of the association and exposition; therefore,

Resolved, That the hearty thanks of this convention be tendered them in general, and Mrs. C. A. Wetmore in particular, for their aid and her valuable aid; that by and with the consent of the council of the association she be elected the first honorary member of the same, and that a copy of these resolutions be presented to Mrs. Wetmore by the secretary.

BUY THE

HOWE SCALE.

D. N. & C. A. HAWLEY,

AGENTS,

San Francisco

THE CODLING MOTH AND BARK LOUSE.

[By Professor A. J. Cook, Entomological Department of the Agricultural College of Michigan.]

CODLING MOTH. *Carpocapsa pomonella* Linn.—This insect, though so well known as a larva—the “apple worm”—is not familiar even to many of our wisest fruit growers in its mature or moth state. Hence the desirability of a brief description of its size, markings and habits, even in a paper written wholly to give practical instruction to practical folks.

The main color is gray dotted with darker dots and bars, and with a characteristic copper colored spot at the end of its front wings. This spot will always enable one to distinguish this moth. Every apple grower should put wormy apples in a small box and rear the moths, that there may be no doubt about the species. In May, about two weeks after the blossoms appear, the female moth commences to lay eggs in the calyx of the blossoms. These soon hatch, when the minute larva eats into the apple and feeds upon the pulp about the core, filling the space with its fecal filth.

Some good observers argue that a single larva feeds in several apples. While it is hard to prove that this may not be true, I am sure that it is not always the case, and from my observations and experiments, I have been led to believe that it was exceptional if ever true. One wormy apple placed with several others in a box has always remained the only one injured. Again, I have several young trees which only bear a few apples; in early fruit, I have found one, two or three apples on a tree attacked late in June, each containing a full grown larva, while the few others near by would all be sound. And yet the apples injured, and which still contained the full grown larva, seemed to be no more eaten than those usually found with the mature “worms” in them. Here each certainly fed on a single fruit, and as it would be safer for the larva to confine its attacks to a single apple, I have been led to wonder if it were not a mistake to argue that they generally migrate to different apples.

These spring moths continue to come from cellar or apple house till July. I have taken such moths July 4th on the screen of my cellar window. The whitish larva attain their full growth in about four weeks. This period will be lengthened by cold and shortened by heat. When mature the larva leaves the apple, which may have fallen to the ground, and seeks a secluded place in which to spin its cocoon and pupate. The pupa or chrysalis is much like those of other moths. The pupa of the June and July larvae are found in the cocoons soon after the latter are formed, while those of the autumn larvae do not pupate till spring, but pass the winter as larvae in the cocoons. The eggs of the second brood are laid in July, August and September. The larvae feed in autumn, and often till mid-winter, while as just stated they do not pupate till spring.

REMEDIES.

As this is by far the most injurious pest of the apple, it should be widely known that we have a very satisfactory remedy.

The old method of bandaging failed signally, as it required careful attention right in the busy season, at intervals of from ten to fifteen days. This was neglected and so the method was a failure. A better method was that of pasturing hogs in the orchard, which would eat the wormy apples, as soon as they fell, and thus save

the fruit, and kill the insects. This remedy was imperfect, as many larvae left the apples before they fell from the tree, and so of course escaped. To render this practice effectual, the orchardist must fell the wormy apples to the ground, before the worms leave them. As the mound of filth at the calyx end—which as the apple grows will hang down—shows which apples are wormy, it is not very difficult, with a forked stick, to remove all wormy fruit. This not only makes the hog remedy quite perfect, but also thins the fruit, which insures much finer apples.

Another so-called remedy which finds space in the papers each year, is to attract these moths to liquids, either sour or sweet, which are placed in vessels suspended in the fruit trees. It is stated that sour milk and sweetened water will lure scores of these moths and drown them. This remedy, like that of attracting these moths by fires in which they will be burned, is entirely worthless. I have tried both repeatedly, and without a shadow of success.

SPRAYING WITH THE ARSENITES.

By far the best remedy for this codling moth, is to use either London Purple or Paris Green. The remedy is not only very efficient, but is also easy of application, and not expensive. I have now tried this thoroughly for six years, and in each and every case have been more than pleased with its excellence. Enterprising fruit growers of New York, Michigan and other States have also tried it and are as loud in its praise as I am. Indeed, I know of no one who has tried it in vain.

I have found London Purple just as effective as Paris Green, and as it is cheaper, and rather easier to mix in the water, is to be preferred. White arsenic will serve as well, but from its color it is apt to be mistaken for some other substance, and may thus in the hands of the careless do great harm, and perhaps even destroy human life.

I mix the powder one pound to fifty gallons of water. It is best to wet the powder thoroughly, and make a paste before putting it into the vessel of water, that it may all mix, and not form lumps. For a few trees we may use a pail, and Whiteman's Fountain Pump, always keeping the liquid well stirred. One common pail of the liquid will suffice for the largest tree. A teaspoonful of the poison is enough for a pailful of water. For a large orchard, common barrels should be used, and drawn in a wagon. I prefer to have the barrels stand on end, with a close movable float, with two holes through it, one for the pipe or hose from the pump and the other for a stirrer. If very large orchards are to be treated, a good force pump should be fastened to the barrel. In western New York, the handle of the pump is attached to the wagon wheel, so that no hand power is required other than to drive the team and manage the pipe which carries the spray. The spray may be caused by a fine perforated nozzle or a cyclone nozzle. The finer it is the less liquid will be required. The

important thing is to scatter the spray on all the fruit, and get just as little on as possible. The larva is killed by eating the poison, and we find that the faintest trace suffices for the purpose. Again, the poison should be applied early, by the time the fruit is the size of a small pea. I have found one such application to work wonders. There is no doubt but that the first application, followed by one or two others at intervals of two or three weeks, would be

more thorough, yet I have found one application, made early, so effective, that I have wondered whether it is best or necessary to make more than one application. I do think, however, that it must be early. In May and June, the calyx of the apple is up, and so the poison is retained sufficiently long to kill most all of the insects.

One more count in favor of this treatment, is the further good we receive by killing the several phytophagous larva that attack the foliage of the apple at this early period when defoliation is so harmful. Thus the terrible canker-worm, the several destructive leaf rollers which even eat out the very buds, and that old pest, the tent caterpillar, are all made to bite the sod. Very likely, too, the plum gouter which so deforms the apple in Wisconsin may also find in this remedy its death warrant.

The danger from this practice I have proved to be nothing at all. The microscope and chemical analysis have both shown that all the poison has been removed long before we wish to eat the fruit. The wind no less than the rain helps to effect this removal, as I have shown by putting the poison on plants sheltered from all rains. Of course we should not turn stock into an orchard till a heavy rain has washed the poison from all herbage under the trees.

I am entirely positive that a knowledge and practice of this remedy throughout our country, will save hundreds of thousands of dollars to our fruit growers. It will serve to give us the fair, perfect apples known to our fathers, but which have become lamentably scarce in our modern orchards.

THE APPLE TREE BARK OR SCALE LOUSE.

In many parts of our State, the Apple Scale or bark louse is very common and destructive. This is often called the Oyster Shell Bark Louse, and is known in science as *Mytilaspis pomorum* Bouché.

Under the scales at this time, from late summer till the following June, will be found scores of small white eggs, which resemble white powder, unless magnified. Early in June these eggs hatch, and the minute yellowish lice will be seen scattered about the trunk and branches of the tree. Soon they insert their beaks into the bark, sometimes into the skin of the fruit, and commence to suck the sap or juice. They now grow rapidly, and secrete a waxy, fibrous substance which forms the growing scale, which will be fully developed by August, when the many white eggs will again be laid under the protecting scale, where, unless eaten by some parasite or mite, etc., will remain in safety till the coming June.

It seems strange that these small, almost microscopic insects can do so much injury, as they often destroy large, vigorous trees. Yet when we consider their numbers—often millions, which almost cover the bark of the tree, it does not seem so strange. The scales of the male lice are rarely seen. They are found on both sides of the leaves, and are more symmetrical than the female scales. The males have two wings.

REMEDIES.

Parasites, Mites and Lady Beetles, all prey upon these fell destroyers, but though efficient aids, they are not always enough to exterminate the lice, and then the trees fall victims to these ruthless suckers. I have seen trees in all parts of our State thus enfeebled or destroyed.

The old remedy, soft soap, or a strong solution of the same, will surely vanquish this enemy if it is applied in early June and

again three weeks later. I have proved the efficacy of this treatment over and over again. The trees at once put on new vigor, and in a short time only dead lice could be found. To apply this specific, I know of no better way than to use a cloth and scrub by hand. To be sure we can, if dainty, use a brush like a shoe-brush, but I like to go at it with a good cloth, when, with sleeves rolled up, I make pretty sure that no louse escapes.

For the past few years I have changed the substance by adding crude carbolic acid, which I think improves it, especially if but one application is to be made; and we know that at this busy season the second application is apt to be neglected.

I heat to the boiling point one quart of soft-soap to two gallons of water, and while still hot, thoroughly stir in one pint of crude carbolic acid. This may be applied as before. This carbolic acid mixture retains its virtue, I think, longer than does the soap alone, and so is especially desirable when but one application is to be made, as described above.

Like the arsenites, so this carbolic acid and soap mixture is of triple value. Not only does it kill the dreaded lice, but it also keeps off the borers, which are also serious pests in the orchards of Michigan. The old borer, *Saperda candida*, and *S. crenata*, are quite common and destructive in our State, while the Big-headed Borer, *Chrysobothris femorata*, is even more prevalent and harmful. I have demonstrated beyond question that these enemies are surely kept away by the same treatment, applied at the same time for which we use it to ward off the scale lice. No wonder, then, that our trees put on such new life and vigor after this annual scrubbing.

In each of these remedies, then, not simply two, but several birds are killed by the self same stone. It is to be hoped that many of our fruit growers will throw it, and thus secure fairer fruit, and save much to our State.

Thank You.

EDITOR MERCHANT:

I have received the bound Vol. XV. of the S. F. MERCHANT, and I have turned over each leaf with much interest. There is not one leaf of your paper that does not call back important information, regarding Viticulture, and it shows the hard fight our Commission is making for California—and I must confess, that I have been sorry to hear some petty wine makers ignorant of the existence of such an important paper to them—and it is no wonder if the blunders of last years are to be repeated this year. I believe you ought to keep a large collection of your issues, because when the contents are well known, there will be a large call for it, in the shape of a volume. Please note that I wish to receive Vol. XVI. as soon as it will be published. Yours faithfully,

CAPT. J. CH. DE ST. HUBERT.
Margherita Vineyard, Fresno, Cal.,
June 1st, 1886.

ARE YOU USING
WELLINGTON'S
IMPROVED EGG FOOD
For Poultry?
IF NOT, WHY NOT?
EVERY GROCER, DRUGGIST AND MERCHANT
SELLS THIS EGG FOOD.



L. LANDSBERGER. HENRY M. LANDSBERGER.
Landsberger & Son,
Commission
Merchants,
123 CALIFORNIA STREET,
SAN FRANCISCO.

Agents for the Purchase and Sale of Viticulture
Products and Vintners' Supplies

THE WORK AT WASHINGTON.

EDITOR MERCHANT:—The turmoil of receptions and the pleasant proceedings of the National Grape Growers Convention are over. All we hoped and desired from the gathering has been fulfilled. Our industry must be recognized as a national industry and our cause of progress and purity is no more regional. The participation with all his heart and the faculties given for attaining our just ends on the part of the Commissioner of Agriculture, the greeting the Chief of the Nation has given to the representative body, the perfect harmony reigning, has given us the national standing which cannot be ignored by any patriotic American. There are many we met here, engaged in viticulture, men of high attainments. The absolute agreement of their views with ours relative to viticulture was one of the pleasantest experiences made through association and we know that a great number of progressive men, well versed in the theories and practices of our industry, will heartily work together with our distant California growers. The recognition of merits in many wines made from indigenous cultivated grapes and of our wines from vinifera varieties has been mutually gained, and likewise that intercourse and experiments will prove the usefulness of certain kinds of grapes of both species for improvement in blending. Any jealousy or rivalry will gradually vanish and the community of our interests redound in mutual assistance to render American wines, all of them grown on this Continent, more perfect.

Just as our California samples were tasted with interest by our Eastern friends, so we obtained the acquaintance with the merits of theirs with the same interest, examining these.

Collections of our samples were taken home by several gentlemen for their local viticultural clubs. One of 52 different Eastern wines goes to our State Commission to San Francisco.

There were 107 samples exhibited by the different States East of the Rocky Mountains. The specified list of samples will be sent very soon. Meanwhile it can be stated that our Eastern friends agree in the opinion that the most creditable specimens of California wines have been sent.

Of Eastern wines the growers of Virginia sent Norton's, Cynthia, Alvey, Clinton, Ives, Hermann, Delaware and blended wines. The Monticello Wine Co. and W. Hotopp of Charlottesville and Messrs. Hensler and Heineken of Haymarket presented them. New Jersey production showed Concord, Martha, Ives, and others from quite a number of producers. The densest tinted "Ironclad" of Col. Pearson excited great interest.

Of Ohio wines Sandusky sent Champagne, and by Messrs. Dewey & Son, of New York, specimens of aged Ohio Ports, Delaware and Sherry were exhibited.

New York State showed appreciable specimens of Catawbas, Ione and Champagnes. Mr. G. E. Ryckman's wine of the new variety Niagara is doubtless worth attention. Its uses for blends seem to be of interest.

Florida had one wine from Tallahassee and Missouri several still wines and champagnes. There were 10 sparkling Eastern wines. Washington had six wines exhibited, made in this city from grapes of the environs by C. & J. Xander. The Hammond Sport great wine companies had a fine collection of Champagnes, Ports, Catawbas and

Clarets. Hon. W. J. Green's Fayetteville plantation had furnished samples of sweet and dry Scuppernon and Claret. New York products of Frasch & Co., dry and sweet, still and sparkling, were there in good array.

Regarding our California exhibits we have collections of G. Niebaum's Rutherford growths. Claret and Riesling and Brandy from W. Scheffler, an abundant supply; from Beringer Bros., of Zinfandel and Burger; of Crabbs, Colombar, Zinfandel, Moselle, sweet Muscat, Port and Burgundy; of Brun's, Riesling and Zinfandel; Mr. Husmann's little collection of white wines is instructive, so is Rollo Wheeler's remittance of 4 wines. The wines sent by Geo. West of Stockton, Kohler & Frohling, Tysen & Totten, Gundlach & Co., and the Eisen Vineyard, comprising choice wines of many kinds, then Messrs. Wm. T. Coleman's wines and Brandies, from Schramm, De Turk, Baldwin, some white wine of Barton & San José Burgundy, allowed of copious diffusion of tasting at the reception. Selected specimens of high grade new variety wines of C. A. Wetmore did good service for proving what high class wines will do for us. Mr. J. H. Drummond of Glen Ellen has by his collection of similar specimens proved to the Committee on Wines the vast difference of these against former standards of California, or present ones of commerce, where the blessed Mission form a main ingredient. Mrs. Warfield added a collection of a pretty wide range. Mr. I. DeTurk had provided us with good and demonstrative specimens of aged liquids, both fermented and distilled. Some Olive oils, made by grapegrowers on their properties, proved the privilege we have in raising and, we hope, in constantly increasing quantity that valuable product.

We served at the receptions all our wines from bottles which contained the labels analogous to the one annexed here. The trays, containing the glasses filled for the guests, had the empty bottles so, that every contributor's wine was given to drink with the knowledge of its producer.

Only one Champagne from our coast was represented, and surely with no discredit. People asked for Haraszthy's Eclipse over and over again at the reception after the stock had been exhausted.

The collection of 151 samples from the late March Convention of San Francisco, sent by the State Commission, has been transferred to the Analytical division of the Department of Agriculture.

It is the true impression made by the public receptions of the National Viticultural Union, that they were temperance gatherings. Grape growers can be proud of these gatherings.

There were corking and bottling machines, bottles, caps, corks etc., of Witteman Bros. of New York, Hutching's instantaneous fitter, Bosqui's splendid grape engravings, and other interesting exhibits relative to Viticulture and Viniculture.

F. P. FRR.

Washington, May 23rd, 1886.

We hear that if the Cordelia Wine Company's venture, in selling wine at five cents a glass, be successful at Napa, then the stronghold of St. Helena will be invaded.

It would be well for all young vines, without excepting even the *enrageat*, to be provided with little stakes to keep them straight and well in line, until they are strong enough to dispense with a support.

AMERICAN WINE-MAKERS IN CONVENTION.

[Wine and Spirit Review.]

The producers and friends of native wine have substantial reasons for congratulating themselves upon the favorable auspices under which their convention at Washington, during last week, was held, as well as the results which crowned their efforts to organize a permanent and effective national association. Invited to meet in the building of the Agricultural Department of the Government, and encouraged by the presence and co-operation of the Commissioner of Agriculture himself, they have the satisfaction of regarding their industry as one worthy of and having received the recognition of the Government. It is, perhaps, fortunate for the industry that Commissioner of Agriculture Coleman, is himself a grape grower, and a friend and patron of viticulture.

The Convention assembled on the 18th instant and continued four days and besides those attending as members, each day's session attracted more or less of an outside interest and attendance, all of which tended to encourage the promoters of the organization.

Mr. Chas. A. Wetmore, of California, President of the Association, occupied the chair, and there were delegates present from Virginia, New York, New Jersey, North Carolina, Ohio, Missouri, Texas and California.

Among the delegates were many gentlemen who displayed much intelligence in discussing the various topics considered, and several papers upon American viticulture and kindred subjects were read. An able address was also delivered by the Commissioner of Agriculture, which was received with much applause and evident appreciation.

The feature of the convention which attracted much attention was an exhibition of native wines, both still and sparkling. This exhibit embraced one hundred and seven specimens from States east of the Rocky mountains, one hundred and fifty-two specimens from the California State Viticultural Commission, and one hundred and ten specimens from individual growers in California.

Two public receptions were given at the Washington Masonic hall, where many hundreds of guests were entertained and given an opportunity of tasting and testing American wine.

VITICULTURE IN MADEIRA.

Mr. F. d'Almeida Britto, Inspector-General of Phylloxera of South Portugal, states with regard to viticulture in the island of Madeira, some facts which we quote here. "They have planted the American Isabella vine largely in that island. Phylloxera invasion is attributed to that variety in Madeira. It yields a very disagreeable wine, does not resist Phylloxera, but withstands its attacks longer than vinifera varieties.

Irrigation in dry years is a necessity in Madeira, in order to render the must less dense, a defect which obstructs proper fermentation. The cultivation of the vine is very loosely carried on, and pruning contrary to rational system. Hardly any of the modern tools or machines are used.

Of red varieties, the following are most in vogue: Negra molle, Bastardo, Muscatel preto, Maroto, Esganacao, Feiral, Alicante and Barrete de el-rigo. White varie-

ties are: Verdelho, Sercial, Malvasia, Muscatel, Bastardo, Listrao, Bral and Tarrantez. As to vinification and treatment of the wines, no fault can be found with the intelligent vintagers and merchants of Madeira.

Re-planting goes on slowly, notwithstanding the government having placed at the disposal of the people, 200,000 American vine cuttings. On the model of the school of grafters of the Viticultural Society of Lyons, France, the government has instructed a number of young laborers, and the effect of this will be favorable in the next years. American vines grow readily on the island. The future of viticulture in Madeira is based on these vines. People are awakening and progress is sure to follow."

California Wines.

[Bonfert's Wine and Spirit Circular.]

Mr. Charles A. Wetmore, the Chief Executive Viticultural Officer of the California State Board of Viticulture, and Mr. F. Pohndorff, were present at the meeting of the Council of the Wine and Spirit Traders' Society, on the 10th inst.

The main objects of Mr. Wetmore's presence in the East were stated in our last issue. These were discussed by Mr. Wetmore and the Council, and it was shown that the views of the Society regarding the points at issue were practically the same as his.

Mr. Wetmore showed some exceedingly interesting samples of California wines. None of them were entirely free from the usual faults of these wines, but they showed a marked improvement upon the samples that have hitherto been shown here, and it was generally agreed by the members of the Council present, that the products of California vineyards will soon prove themselves formidable competitors to some of the European vintages.

The samples were of young wines that are as yet produced in only very small quantities, but Mr. Wetmore informs us that the State will very soon be able to produce a sufficient quantity of these grades to make a mark upon the markets of the world. He does not, however, look to foreign markets for a large consumption but expects to inculcate habits among our people that will make the demand for drinkable wines quite large enough to carry off the total production. There is ample room for this, for if our people drank as much *per capita* as is consumed in the Hérault, the present annual wine production of the country would barely suffice for two day's consumption.

Mr. Wetmore informed the Council that cuttings of vine would produce nearly the same wine wherever planted, and hence he expects in the course of a very few years to produce wines in California, well up to the better growths of the Gironde and the Rheingau.

His remarks were very interesting and instructive, and although we cannot entirely agree with him in all his views, we think that the course he is pursuing is the best that can be taken under the circumstances. His efforts cannot fail to result in doing an immense deal of good to the cause of American wines, and we assure him of our hearty support in his efforts.

The Brandies that he showed elicited from the gentlemen present a still more unqualified approbation than did the wines.

Whether the vines are old or young, there need be no fear of allowing them to bear too much as long as they are vigorous, but they must be spared when the vegetation is poor or ordinary, which may be due to the quality of the soil, or the natural fertility of the variety.



ISSUED FORTNIGHTLY ON FRIDAY MORNING BY

E. C. HUGHES & Co., - - Proprietors.
 CHARLES R. BUCKLAND, - - Editor.
 Office, 511 Sansome street. Postoffice Box, 2366

TERMS - PAYABLE IN ADVANCE.

One copy one year \$3 00
 One copy six months 1 75
 Including city delivery, United States, or Canadian
 Postage.

Entered at the Postoffice as second class matter.

AGENTS.

ANAHIM MAX NEBELUNG
 CLOVERDALE, Sonoma Co J. A. CARRIE
 DIXON, Solano Co A. R. STORV
 DUNCAN'S MILLS, Sonoma Co H. C. WARNEB,
 FRESNO Golden Rule Bazaar
 FAYESVILLE, Sonoma Co D. LEPTO
 HEALDSBURG, Sonoma Co A. BALTZELL
 LIVERMORE, Alameda Co GEO. BECK
 MAYWELL, Colusa Co M. NATHAN
 SANTA ANA R. F. CHITTON
 SANTA ROSA, Santa Clara Co E. B. LEWIS
 SANTA JOSE C. A. WRIGHT
 STOCKTON WM. R. ROBINSON
 WINDSOR, Sonoma Co LINDSAY & WELCH
 WOODLAND, Yolo Co E. BERG
 WOODVILLE J. M. OAT, Jr. & Co

FRIDAY JUNE 4, 1886

Recognition.

Our friends in the Fresno Viticultural and Horticultural Association recognize the value of a journal like the MERCHANT guarding and advancing their interests, and give effect to their good wishes in a very practical way, as will be seen by the following resolution:

Official.

FRESNO, CAL., April 5, 1884.

Proprietor S. F. MERCHANT: - Dear Sir, Below is a copy of the minutes of the last meeting of the Fresno Viticultural and Horticultural Society that is of interest to yourself.

Resolved: That this Association recognize the SAN FRANCISCO MERCHANT as one of the best organs of the Viticultural and Horticultural interests in the State, an exponent of their views and able advocate of their interests, and, moreover as a paper which has taken more than ordinary interest in the prosperity of Fresno county. We agree to give the publisher our liberal support while that journal pursues the course for which it has hitherto been distinguished.

Moreover, we suggest that manufacturers and dealers in agricultural implements and other merchandise who wish to call our attention to their goods, ads and other viticulturists in maintaining the SAN FRANCISCO MERCHANT on a sound footing, by giving it a large share of their advertising patronage.

Be it further resolved that the Fresno Viticultural and Horticultural Society tender its thanks to the SAN FRANCISCO MERCHANT for past favors.

C. F. RIGGS, SECRETARY.

WANTED.

WANTED BY JULY FIRST, A THOROUGHLY competent wine maker, conversant with all branches, and must be well recommended. Advertisers will pay a good salary. Six months or yearly engagement as arranged. Permanent position to first class man. Apply to Secretary Fruitvale Wine and Fruit Co., P. O. Box 349, Fresno, Cal.

The drop of a quarter of a cent on all grades of sugars made by the California Refinery, on the 1st inst., was a surprise to the jobbers, and caused a rush with orders.

Catch the Grape Moth.

People in town as well as in the country could do much good if they would spend half an hour every evening in catching the big humming-bird like grape moths, visiting the fragrant flowers of many of our shrubs and vines. As these moths lay an abundance of eggs, which hatch into the destructive grape worms, it is evident that the proper way to get rid of the worms is to destroy the moths. As the moths fly a long distance to reach the sweet blossoms, for instance the honeysuckles, a boy stationed in the evening with a net could do much good towards keeping this pest in check.—Fresno Republican.

WINE SHIPMENTS.

The present year has been a remarkable one in the wine trade. We started in with a very short crop of wine of a quality superior to that of the crop of 1884. Though the price paid for last season's grapes was unprecedentedly low, the price of ordinary wines increased by ten cents a gallon a few months after the vintage. The market has remained firm at the advance during this year. The prospects for the coming season are a very large crop of grapes, and almost empty cellars. This is to be regretted because it forces a continuance of the sale of new and immature wines which does no good to the general cause of the industry. Another damaging blow has been the cheap freight rates that ruled for a couple of months. This has caused the shipment to Eastern points of all the refuse of our cellars together with a small quantity of good wine. This refuse will be thrown upon the Eastern markets indiscriminately to the general detriment of the business. A glance at the tables of our wine exports for the first quarter of this year, and a comparison with the shipments of last year for the same period, will show a mushroom growth which cannot continue and which must be unhealthy. In the month of March alone we shipped East, by rail, 1,370,949 gallons of wine and the total shipments for that month, by sea and rail, almost equaled one-third of the whole export business in the year 1885. We give in detail the figures for March to show the abnormal growth and the sources of shipment. Thus:

BY RAIL—MARCH 1886.

From—	Gallons.
San Francisco	1,018,477
Los Angeles	206,169
Sacramento	57,091
Marysville	16,854
Stockton	7,912
Oakland	2,814
San Jose	722
Total	1,370,949

The total trade for the first quarter reaches almost 2,000,000 gallons as against a little more than 1,000,000 gallons exported in the same period in 1885. In sea shipments there has been a decline of 115,000 gallons in the Panama steamer trade but a gain of 40,000 gallons in shipments to other consuming centers, the greatest increase being in the Honolulu trade. The figures are interesting and worthy of study. We present them without further comment:

WINE EXPORTS—FIRST QUARTER 1886

Month—	By rail.	Panama Steamers.	Other Sea Rts.
January	126,456	54,027	21,478
February	239,198	96,143	21,118
March	1,370,949	23,146	10,695
Totals	1,736,603	173,316	53,291
1st quarter 1885 ..	781,553	289,183	13,713
Total, 1st quarter 1886 ..		1,903,510	
Total, 1st quarter 1885 ..		1,084,449	
Increase, 3 months 1886 ..			819,061

OUR HAWAIIAN TRADE.

We are pleased to note a continuation of the large exports from San Francisco to the Hawaiian Kingdom. The returns for the past month, as supplied by Consul-General D. A. McKinley, show that there is no diminution in our trade in this direction. The total for last month foots up the very respectable sum of \$253,528 23, and, so far, the returns for this year show an increase as compared with the shipments for 1885. If the present average be continued, the total of our exports to the Islands this year will exceed \$3,000,000. A very large number of sailing vessels and steamers left here for Hawaiian ports last month, and among

the heavy shipments were bricks and lumber, which, will doubtless be utilized for the rebuilding of the lately burned portion of Honolulu. From the figures given below, it will be noticed that of the goods exported from here, those which are "Free by Treaty," form nearly three-fourths of the whole. Thus:

	Value.
Admitted, Free by Treaty	\$186,251 91
Dutiable	66,526 62
Free by Civil Code	349 70
Total	\$253,528 23

WHAT IS WANTED.

We published, in the last issue of the MERCHANT, a special telegram relative to the work being done at Washington. I certainly did not show a state of affairs that was at all complimentary to the viticulturists of California. The only California house that had then sent a representative to the National Viticultural Convention was the old house of Wm. T. Coleman & Co. Again was repeated that ever constant cry—"want of funds." There are now some four thousand persons in this State who are engaged in viticulture in its various branches. They all expect work to be done in their interests and complain if the work be left undone. They do not think that legislation in their interests necessarily involves a large outlay of money, as well as time and hard work. Or if they do think so, they pass the subject by hastily as an unpleasant one which touches their pockets. Nine out of ten of our viticulturists will, directly or indirectly, reap the benefit of the legislation that Mr. Wetmore is now endeavoring to secure for them, yet there is not one in fifty of them who will give material assistance to the work in the manner that it is most needed. A small handful of our wine makers have year after year continued to find money and contribute largely toward any fund necessary to benefit the common cause. It is unfair and unreasonable to ask these same few parties to continue doing the good work when they witness the apathy of the many. And they will not continue to do it. If each one of our four thousand viticulturists would contribute one dollar only, then there would be some inducement, besides the pecuniary assistance, for the workers to push on their labors with renewed vigor. It would show that, to the extent of a dollar at least, there was unanimity, and a desire for action. It would be encouraging and stimulating. There is not a man in the business who cannot afford to give one dollar. Yet out of some four thousand we find fifty or a hundred subscribers to a fund that is being utilized in such a manner as will be of incalculable benefit to all. And those who do not assist will be the first to complain if the efforts of the few are unsuccessful. Such a state of affairs is enough to dishearten the most earnest, and it reflects but little credit upon the majority of our viticulturists.

Decidedly unique and original is the little cycling scrap book just issued by the Pope Mfg. Co. of Boston, Mass. Upon the covers are fac-similes of the covers or front pages of thirty-seven of the leading American publications, and inside are between two and three hundred newspaper and magazine clippings and quotations from prominent personages pertaining to the hygienic, business and pleasurable advantages of cycling. By an arrangement of genuine pasted scraps, which makes the book worth possessing as a curiosity, as well as for the really valuable information it contains. The book will be sent upon request free by mail, upon receipt of stamp, to any one interested in cycling.

A GROCER'S GROWL.

Much has been said and written on the subject of the competition between the two sugar refineries on this coast. So far the effect has been to cause an apparent reduction in the price of sugar, though it is doubtful whether quotations would be so low were it not for the demoralized condition of the New York market. During the "cut-rate" war no less than 18,500,000 pounds of sugar were shipped, in a single month, to Eastern points. This, of course, relieved one or both of the refineries of what would have been a surplus stock, consequent upon the unusually large yield of the Island crop for the present season.

However, there is another point to be considered, and a very important one for both jobber, retailer and consumer. That is the quality of the sugar that is being placed on the market. We have heard complaints on this score and samples of the same grades of sugar from the different refineries have been shown us for comparison, side by side. The samples of both were taken from barrels as placed upon the market, and, therefore, should be a fair criterion to judge by. In the dry granulated that we saw, the sample of the American Refinery sugar was of a somewhat dirty looking tint, whereas the California Refinery's sugar of the same grade was pure white and of large crystals, while the product of the former more nearly resembled sugar. The Extra C. of the American Refinery had a strong and very palpable peculiar perfume and a sandy appearance. Some jobbers have been complaining considerably of the difference in the qualities of the same grades, and we heard the remark made by one Front street jobber that he would rather give a quarter of a cent more per pound for the California Refinery sugar than be would for the American. There is also a difference regarding the cube sugars, the comparison not being very favorable to the latter institution. The consequence has been that, although the California Refinery has recently erected additional cube machinery, it is over-run with orders. Where there is such a difference in quality, and prices are equal, consumers and fruit canners would do well to compare samples. Good sugar is especially necessary to ensure success in the fruit canning business.

Our Products at Washington.

Of the wines destined for exhibits and tasting sent from California for the National Viticultural Convention up to May 13th, the following had arrived: G. Niebaum, 1 barrel Zinfandel, 3 barrels Sauvignon vert, 1/2 barrel Carignan; Beringer Bros., St. Helena, 2 barrels Zinfandel, 2 barrels Burgundy; A. Brun, 1/2 barrel White Wine, 1/2 barrel Red; W. Scheffler, 1/2 barrel Claret, 1/2 barrel Riesling, 1 large box Brandy; H. W. Crabb, 1/2 barrel Zinfandel, 1/2 barrel Burgundy, 1/2 barrel White Wine, 1/2 barrel Sauterne affinity, 1/2 barrel Sweet Burgundy, 1/2 barrel Sweet Muscat. Then the collection from the Viticultural Commission, duplicates from the late State Convention and several half barrels of wines from Mr. Wetmore's crop of the Cresta Blanca vineyard arrived. From Messrs. Wm. T. Coleman & Co. of New York 47 small packages of raisins were in the store of the California G. G. and W. M. Association and made a good display at the Agricultural Hall. The wines arrived mostly in excellent condition, only five barrels having to be fined.

Mr. Wetmore rented the Masonic Hall for two evenings in the Convention week, when discussions and sampling took place apart from the proceedings in the Agricultural Hall.

WINE TASTERS.

Jullien in his *Manuel du Sommelier* says: "Wine is one of the products of nature which are most difficult to judge and to select." He adds: "The qualities of wine and its taste vary not only according to the species of the vine which produced it, but also according to climate, the nature of the soil, the exposure, temperature of the year, the manner in which the must has been treated, etc. Wine at the end of the year is no more what it has been when it was racked off the lees. In short, the great changes and metamorphosis in its development which lead at last to its decay, present such a vast variety of characteristics, that the best experts are often at a loss to determine its qualities. A consumer can select from several types that which is most acceptable to his taste. But he cannot appreciate a young wine which he intends keeping for a long time. The future of a wine which only experts can guess, we will not say predict with any degree of certainty, is a delicate thing. Practice can only foresee changes to occur. Transformations as a rule are pretty analogous in wines of one kind and of the same vines. But the observations of the same and profound acquaintance with the nature of an individual wine are among the first attributes of a good expert in order to be safe in his practice.

A delicate palate and the knowledge of wines are extremely necessary for properly exercising the taster's calling. Bordeaux and Burgundy possess able men; the same the Sherry experts and those of the Rhine are renowned. We would say that any extraordinary feats attributed to such men with regard to telling at a stroke the age and the variety of certain wines placed before them, are frequently, when occurring, mere chances of ascertaining. As a rule, only with intense comparison in the exercise of their calling and when a large number of samples are being tasted, such cases may happen. But, exaggeration in this connection is sure to be the rule and it is impossible for any man to constantly repeat the feat. All these *tours de force* are superfluous. Men's senses are, if well developed, far too uncertain to be perfect, and a taster can not do wonders. The judgment of a number of good experts on the same wines will very often prove divergencies such that only by comparing the different appreciations they will come to conclusions that at the end is a compromise. It suffices in the important act of degustation to observe closely and analyze in each sense necessary to be used for the test of each property, merit or defect of the composition of a wine and in conscience to form a judgment. Constancy of practice is an absolute requirement for the preservation of the capacity of exactly determining the nature, the expression and the inwardness of a wine. And again, if the ideal of perfection in each taster's judgment is influencing his tests, it ought to be required that the standard should be high. The best models should be intimately known to a good taster. His experience in discerning any defect should be great. Thus a young expert of only a few years practice will have to pass through many deceptions before his judgment becomes correct. And, as said before, it should be exercised by the study and practice in model wines of various and multifarious kinds, and comparisons made frequently. Before venturing to blend wines of different natures, practice

should be required of him. That operation is not guess work. Not too many trials and observations of wines apparently fit to be merged together can be made, before determining blends on a large scale. This is one of the principal acquirements of a taster: practice in blending. Even the smallest blend will only be made after trials in the bottle. We cannot impress scrupulosity in this regard too serious upon any owner of wines. The proper treatment of wines is guided by rules. The main one is: free your wines for good development of all matters nature expels. Separate the depurated wine from the precipitate, and do it often. The man who disposes in a cellar of the work by intuition sees to the observation of this rule. He has, however, in many cases to deviate from the general rule, according as a wine develops. He will have, however, simply to increase the operations prescribed for handling. To this his solicitude amounts principally.

In our cellars we cannot always have the services of a man conversant with our own wines. The rules are simple, however, and the owner of wines should try to become a practitioner himself. Wherever doubts arise, he can call in a man who knows the wines longer, and we have good tasters in our midst. There should never be any hesitation to call upon several people and obtain their opinion on a questionable wine. Often an early cure will correct a wine that seems to go the wrong way or has been imperfectly made. And if, as is sure to occur, different opinions are the result of inquiry of different people, be guided by what you have heard as the expression of greatest fear for the wine.

It will not be long before we shall have hundreds of practical people that are experts. Mr. Wetmore at the last Convention declared that any man of sound judgment and clear taste can appreciate the general quality of a wine. This is absolutely correct. And from venturing upon practice and constant observations and trials anyone may become very proficient. For interest is a good teacher.

Pacific Coast Canning Trade.

In its valuable Annual Review of the Pacific Coast Canning Trade, the *Grocer and Canner* says: "An average annual production on the Pacific Coast of upward of 1,500,000 cases of canned goods, of an average value of \$4,500,000, shows that the packing industry and the grocery trade are properly entitled to the prominence given them in the review. The Pacific coast pack of canned goods for the season of 1885, consisting of upward of 52,113,320 cans of fish, meat, fruits, and vegetables, has been entirely distributed to a wide but steadily expanding market. The grocery trade has imported and distributed upward of 163,500,000 pounds of sugar, 6,500,000 pounds of tea, 16,000,000 pounds of coffee, and 50,000,000 pounds of rice in the period under review. The general jobbing trade has handled a dried-fruit crop requiring 110,000,000 pounds of green fruit of the value of \$3,500,000, a honey crop of 2,000,000 pounds, one-third of the country's entire product of beeswax, a crop of 2,818,000 pounds of nuts, and a vintage of nearly 10,000,000 gallons of wine—all the various items being entirely of California production. The trade of the Pacific coast requires that some accounting be made at least once a year of the condition of these immense interests."

Statistics of Spanish Viticulture.

Out of 1,300,000 hectares or 3,212,300 acres, at which the vine planted area in Spain was calculated in 1877, were attributed 431,067 hectares to the basin of the river Ebro, comprising the provinces of Alava, Logroño, Navarra, Zaragoza, Huesca, Lerida, Gerona, Barcelona, Tarragona and Teruel; 201,768 hectares to the provinces of Avila, Burgos, Leon, Palencia, Salamanca, Segovia, Sorin, Valladolid and Zamora; 200,600 hectares to the provinces of Badajoz, Cáceres, Ciudad Real, Guadalupe, Madrid and Toledo; 200,000 hectares to the provinces of Murcia, Albacete, Alicante, Castellon, Cuenca and Valencia; 100,000 hectares to the provinces of Cadiz, Seville, Cordoba, Granada, Huelva, Jaen and Malaga; 150,000 hectares to the Cantabrian Coast and the Balearic Islands. Since 1877 the total area of Spanish vineyards is calculated to amount to two millions of hectares or 4,942,000 acres.

The mean production of vineyards is calculated per hectare in the provinces of

	Hectolitres.	Gallons.
Alava	35	925
Murcia	30	792
Balearic Islands	25	660
Tarragona	23	588
Palencia	22	561
Navarra	21	555
Gerona	20	528
Valencia	20	528
Barcelona	17	449
Lerida	12	317
Coruna	9	238

The province of Malaga was calculated in 1877 to produce 25,604,413 gallons of wine; the province of Cadiz, 32,700,000 gallons; Barcelona, 47,000,000 gallons; Zaragoza, 38,568,000 gallons; Valencia, 31,700,000 gallons; and the two provinces where viticulture is most difficult for climatic reasons, Coruña produced 48,000 gallons and Guipuzcoa, 44,592 gallons.

The total production of Spain in 1877 was calculated to be 528,000,000 gallons. The exports of Spanish wines in 1884 have been as follows:

To—	Hectolitres	or	Gallons.
France	4,761,793		125,732,286
South America	619,392		16,360,100
Cuba	404,721		10,691,000

The above figures go far to show of what importance to the wine trade are the American importing countries outside of the United States, the latter having received from Spain only 46,732 hectoliters or 1,134,518 gallons of wine in 1884.

RAISIN SHIPMENTS.

The shipments of raisins to Eastern points show fair proportions, though the figures for the month of February are somewhat in excess of the average, and by far the largest of any month this year. In March, Los Angeles again took the lead, exporting nearly two-thirds of the whole. The figures are as follows:

MARCH, 1886.

From.	Pounds
Los Angeles	128,565
San Francisco	56,615
Colton	10,995
Sacramento	911

Total..... 197,149

During the first three months of this year, the total raisin exports amounted to more than a million pounds. Thus:

FIRST QUARTER, 1886.

Month.	Pounds
January	139,800
February	793,270
March	197,149

Total..... 1,130,219

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

STILL TO THE FRONT.

Just three weeks ago, the Cordelia Wine Company commenced its latest venture by opening a five cent wine shop on Mission Street, at the corner of Sixth. It is hardly necessary to say that it has, so far, been a success, and in fact so great was the clamor in the neighborhood for the cheap wine, that the company had to open shop before they were actually ready. This location also serves as the head-quarters of the company, ample cellar accommodation having been secured there. Captain Shillaber, the manager, tells us that his success has far more than realized his expectations. To give an idea of his receipts and net profits per gallon, we cannot do better than use his own figures. A bottle of wine is always handed to the customer, and, in nine cases out of ten, the glass is never filled. The consequence is that a gallon of wine represents forty glasses or two dollars cash. The net profit on the gallon is rather more than fifty-four cents, after making due allowance for every expense in connection with its sale. This is a somewhat better return than selling at from fifteen to thirty cents to the jobber, and shows what can be done by a little pluck and enterprise. So successful has the undertaking become that the Cordelia Wine Company is now in the market as a buyer of wines, their own stock being insufficient to carry them through. They have received frequent invitations from various parts of the country to extend their five cent business, but are at present unable to do so. They often have enquiries for high classed wines, and are willing to be the medium for bringing producer and consumer together, charging only a very trifling commission for their services. Before very long, they will have established a cheap wine shop in Chicago, and, in fact, a few years will probably see a regular network of the Cordelia Company's wine shops throughout the United States. Their price list shows that they mean business. For instance, the following quotations are given:

	Gallon.	Bottle.	Half Bottle
Riesling or Golden Chasselas.	50c.	20c.	15c.
Zinfandel.	40c.	15c.	10c.
Malvoisie.	30c.	15c.	10c.

We can only say that we wish the company all the success that it deserves in its ventures, and hope that many others will follow the good example.

REDUCTION IN THE TARIFF ON CALIFORNIA WINES.

Our latest private advices from Honolulu brought the welcome news that His Excellency Paul Neumann, Attorney-General of the Hawaiian Kingdom, had introduced a bill into the Legislature for the purpose of modifying the tariff on California wines imported into the Islands. Our exchanges not having come to hand we are unable to give full particulars of the amount of the proposed reduction in the tariff, but we have ample assurance that the bill will pass and become law. This action on the part of the Hawaiian Government as it should be, and has been frequently suggested by the MERCHANT. Mr. Neumann, who is an old Californian, has evidently not forgotten the interests of the producers on this coast, while at the same time endeavoring to instill temperance habits, through the increased consumption of pure wines, among the dwellers in the tropics.

TABLE GRAPES.

The Best Varieties for Shipment

[Rural Californian.]

The following interesting essay on "Table Grapes" was read by Mr. Leslie F. Gay, of Los Angeles, before the County Pomological Society, at its meeting April 1st:

The necessity of giving more attention to varieties and culture of desirable table grapes for Eastern markets is at this time very apparent. Competing railroad lines, an express fruit train, new freight rates continually adjusting themselves in our favor, have brought to our door (comparatively speaking) one of the best markets of the world. The Eastern cities stand ready to take all the choice grapes that we can grow for them—provided we will grow choice varieties, and lay them down at their door in good condition and at reasonable prices. California has been paying but little attention to the varieties or culture of

TABLE SHIPPING GRAPES.

Wine grapes for the production of superior qualities of wine have been in the minds of most of the people, and the second thought and place given to raisin grapes. The wonderful brotherly love of the Southern Pacific Railroad Company for Southern California, helped a little, you know, by the A. T. and S. F., has brought the market to our door sooner than we expected, and we are not ready for it. The shipping of grapes to Eastern markets for table use that are grown for wine or raisins, must often result in loss to the shipper.

For this reason, some are already disappointed, and one prominent shipper has said to me that we cannot grow grapes here for shipping that will compete and compare with other sections. I remember the time when it was currently reported that we could not raise potatoes in this country; could not raise apples—winter Nels pears—apricots to any profit; trees would not bear, etc.; and having been initiated and passed through several such degrees, I am not in the mood to take any more. The best men in the State do not know what we can do in the grape shipping line. The first thing to do is to have faith in this country. Three years ago this last winter we received several barrels of grapes from Spain, purchased in Chicago, and sold them in this market at from 35 to 50 cents per pound. I believe that if Spain can put grapes into Los Angeles in good fair condition three months or more after they are picked, we can put grapes into Spain, if need be, in the same way when we know what they know on this subject. Believing in the capabilities of the country,

WHAT DO WE KNOW ABOUT VARIETIES?

Not much. A little about the shipping grapes of France and Spain, and much less of those of Italy and other southern European countries. The best we know of are the Emperor, Carnachon, Black Ferrara, Muscat, Flame Tokay, Black Morocco and Malaga. I realize that there is great difference of opinion as to best varieties, largely resulting from our own individual experience in our own locality, and I trust that these may be fully brought out in the discussion. Of the first three varieties there are comparatively few raised here, and no great success attained. The vine will not stand hardship, as some other varieties. The vine must be kept vigorous, and I believe summer pruning to be necessary to the best results. The Muscat should be grown at that happy medium of just

water enough and no more. One of the things to overcome in this grape in many places is the tendency to what we call stringy bunches, which, I think, could be materially changed by proper pruning. The Flame Tokay has a tendency to burst under some conditions; good when matured.

THE MALAGA,

So-called, and I believe to be the same grape shipped to this country in barrels from Spain, is now receiving a very thorough test in several places. Several varieties seem to be called by this name. Some have sold large quantities of cuttings under this name that have proved to be nothing different from the Muscat, so that it is not unusual to find men who believe it to be one and the same—and men of large experience, too. And yet they are as different as the Rose of Peru and Mission. It is to be hoped that this Society will give this grape, and any other new varieties that may be reported here, special attention this season. It is grown on low ground by Mr. Taylor of Los Nietos. My brother and myself have several acres in East Los Angeles. C. E. White of Pomona has perhaps given it as good a test, or will this year, as any one on mesa ground. Of the various other varieties of table grapes to which my attention has been called, I know nothing by actual experience, or by the experience of others, sufficient to recommend them.

In considering table grapes for profit, I have discarded many nice varieties, that will not, by reason of their perishable nature, bear transportation, and some for eastern shipment must be omitted by reason of the color and size corresponding so closely to the cheaper grapes of the East. In the consideration of soil, water supply, amount of water to be used and how applied, if at all, the first thing to be considered is: What do we want to produce? What kind of grapes will answer our purpose? Evidently at least

TWO THINGS ARE REQUIRED.

First—Good keeping qualities, which must be maintained in the growth of the grape, as well as the selection of variety.

Second—Reasonably fair size of bunch and grape. On the first proposition it is safe to say that, generally, where water is plentiful, too much water is used. The question of moistening the ground and best method of so doing would require an essay of itself, as also the soil and pruning of the different varieties of grapes, which must in the future enter into this great question.

AN ERRONEOUS IDEA.

On the second proposition, let me say there is a kind of general opinion in the country at large that any kind of land or place is good enough for grapes. If there is a dry hill-side for which there is no water supply, O plant that in grapes! It is down in some canon or some dry wash, where there is scarcely soil enough to separate the boulders from each other, that will do for grapes! Let me protest against such recklessness. Something may be done with wine grapes, perhaps, on such places, but inferior-sized grapes are worth less for shipping purposes.

I have not consented to write these few thoughts with a view of telling some wonderful news, but that I might prompt this society to investigation on this most important subject. If it shall result in giving us better varieties, the knowledge of best methods of pruning for the different varieties, the situation and soil best adapted to

those varieties, so that we may furnish a train-load of choice grapes per day for Eastern markets, and they, in return, clamor for more, sending on freely the golden eagles, which we would be glad to get more of, I shall be satisfied. They stand ready to furnish the coin; shall we furnish the grapes? Let us as individuals and as a society lay plans and attain to all the success possible, even this year, in this direction.

Mr. Gay read the following

LETTERS,

To show the diversity of opinion between shippers as to the desirability of different varieties:

NEWCASTLE, Cal., March 22d, 1886

L. F. Gay, Esq., Los Angeles, Cal.—DEAR SIR: Your esteemed favor at hand, and in reply would say that I am always ready and willing to contribute what little I can give to advance the fruit interests of the State.

The best varieties of grapes for shipping, from my experience, are Tokay, Muscat, Black Morocco, Blue Malvoisie, Emperor, Black Hamburg, Rose de Peru, and for early grapes, Fontainebleau.

For Eastern shipment we only use the Tokay, Muscat, Emperor, Black Morocco, a few Blue Malvoisie, and the Fontainebleau. The Black Ferrara is a good grape, but so far is but little used. There is only one vineyard in the State of any size, and that is near Stockton. The Carnachon, dark in color, and something like the Emperor in shape, is another good shipping, and one of the latest to come to market. But few of these have been shipped yet, on account of their coming in so late. The last named varieties are all good for the Eastern market, and may be shipped in season at a good profit to the grower.

I have used but few of the so-called Malaga grapes of this State, and my experience with those was not satisfactory. But few are grown in this part of the State. Fresno is where most of those come from. Perhaps the constant application of water used there all through the season may have much to do with their keeping qualities and make them spoil quicker. They perhaps would do better on dryer ground, but would not grow so large. I have found the Muscat the most profitable light-colored shipping grape of any used.

Grapes grown on upland without irrigation are the safest for shipping long distances. I have seen carloads of grapes grown on low ground, with plenty of water around them, spoil in twenty-four hours after being packed in crates, while I have seen upland grapes of the same variety keep good for twenty days, and sold in New York and Boston markets. I know of only one variety of Emperor grapes; some on the vines being very dark purple, while others on the same vine are red.

My idea is that the Emperor will do the best on valley land, or on upland if on wet ground. To make them good bearers, the vine must be thrifty.

There are several varieties that have been tested as shipping grapes in the past few years, other than named above, but were found to be useless. The Black Hamburg and Rose de Peru are good shipping grapes, but are not large enough to bring paying prices in the Eastern markets, as they come into competition and fill the place of the small Eastern grapes that are so much less price, that they would not stand the high rates of freight of past years. Hoping I have answered your questions satisfactorily, and that you may

be able to gain some good out of what I have written, I am, very truly yours,

J. F. FARNSWORTH,

Manager Co-operative Fruit Co., Newcastle.

FROM W. R. STRONG & CO.

SACRAMENTO, March 23, 1886.

Leslie F. Gay, Esq., Los Angeles, Cal.:

DEAR SIR: Yours of the 17th received in due time, and would have answered before but for my absence. I will now say that for our Eastern shipments, we consider the Tokay grape the best; after that the Emperor and Carnachon. The Muscat grape does not seem to meet with so much favor.

Our experience as to the keeping qualities of grapes leads us to the conclusion that those grown on the red lands of the Sacramento valley are the best, after that the grapes grown on the foothills.

The Malaga grape is a good keeper, but is not so largely in demand as the Muscat. The Emperor is a much more showy grape than either, and will keep better.

The Hamburg and Rose of Peru are not desirable for shipments, although the latter is much better than the former. The Black Morocco is a good grape, being large and showy.

Hoping this will not be too late to be of service, we remain

Yours truly, W. R. STRONG & CO.

Results From Expositions.

The following literal translation from the articles on viticultural expositions in Paris and Bordeaux, published in a Bordeaux wine paper in the beginning of April, will be a means of attenuating errors committed by our own people, who are certainly not expected to be perfect, while it would be supposed that French vintagers in the Colony of Algiers, would be careful in details, which after all redound in gross errors in the aggregate results.

We may learn, however, the lesson that it is important to attend to trifles, and not neglect any detail which influences the result for instruction. We refer to the care necessary in putting up samples. "In 1882, Mr. Jacques, Senator for Oran, was present at the exhibition of the Philomatic Society in Bordeaux, at the time when the jury was about to pronounce on Algerian wine samples, what their impressions were. The success the Senator had expected was changed to bitter deception, felt as much by the jury as by him. Algiers was represented only by 24 exhibitors, of which 15 from the province of Alger, 4 of Oran and 4 of Constantine. 62 types of wines were exhibited by these 24, and the wines were of different vintages. Although small in number, these samples might have made a good show, had they been conveniently presented. But the samples were in bottles unfit for the kinds of wines, not well filled, nor well corked, in short in poor condition. Some of them were nearly appreciable, and with the aid of experience, the jury could draw conclusions and allow the wines to enter into competition with those of Spain, Italy and Portugal. In virtue of those different considerations, the jury could discern some medals of the 2nd category, silver medals. This first attempt of the Algerian vintagers has however borne good fruit. In the last years they had reformed."

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

CALIFORNIA WINES AND BRANDIES,

San Francisco,
121 Market Street.

Astoria, Oregon,
Flavel's Wharf.

Chicago, Ill.
91 Michigan Avenue.



New York,
71 Hudson Street

London,
4 Bishopsgate St.,
within E. C.

Liverpool,
54 Drury Buildings.

WM. T. COLEMAN & CO.

71 HUDSON STREET,

NEW YORK CITY.

ALSO AGENTS FOR
ALCOHOL, WINE AND SPIRITS.

Why Men Smoke.

A number of literary men smoke simply to make an income. They have learned that with a pipe in their mouths thoughts not only come more readily, but in better order and that, while it is often difficult to get the proper word if they are not smoking, it runs to the point of the pen the moment they "light up." Psychologically this is the most interesting; and the reason woman-kind cannot grasp it is that psychology is not, unfortunately, taught in ladies' seminaries. Smoking is a great safeguard against infectious diseases. It is only by reading up the subject scientifically in medical treatises that one thoroughly gets to understand the thousand risks of this kind that we run every day. In the country, during the Summer months, when men are on their holidays, they look forward to having a temporary respite from smoking. Then it does not so much matter how the temperament is; living so much in the open air, the smoking of others has little effect on them, and there is less danger from infection. It is to keep off the flies that men smoke at the seaside and on the hills. Their own weather-beaten countenances can stand the flies; but these little demons would not only spoil the Summer for susceptible wives and sisters and children, but would disfigure them as well. That is what a man cannot endure. You may have seen picnics on the river or among the fields, with all the men smoking and the ladies standing quite near them. With many men smoking is an excuse for staying at home. A man looks foolish of an evening doing nothing, yet he is too tired to do much. A cigar supplies the amount of labor he requires, and he does not mind the trouble of smoking it so long as it enables him to stay at home without loss of dignity and look admirably, and yet undemonstratively at his wife. Should a man with a small income be an epicure, or naturally of an irascible temper, it will add greatly to the happiness of his home if he compels himself to smoke. And at present, when times are so hard as to affect every one, more or less, a cigar is a cheap and excellent substitute for expensive amusement.—*St. James' Gazette.*

A. O. COOK & SON,

MANUFACTURERS OF

OAK TANNED

TRADE MARK.

Leather Belting

LACED LEATHER IN SIDES AND CUT STRINGS.

415 Market St. San Francisco.

CALIFORNIA

CONCENTRATE

GRAPE MUSTS.

FOR THE SEASON OF 1886 I WILL CONCENTRATE must of grapes from the celebrated Napa Valley Vineyard.

THOS. D. CONE,

Manufacturer of California Concentrated Grape Musts

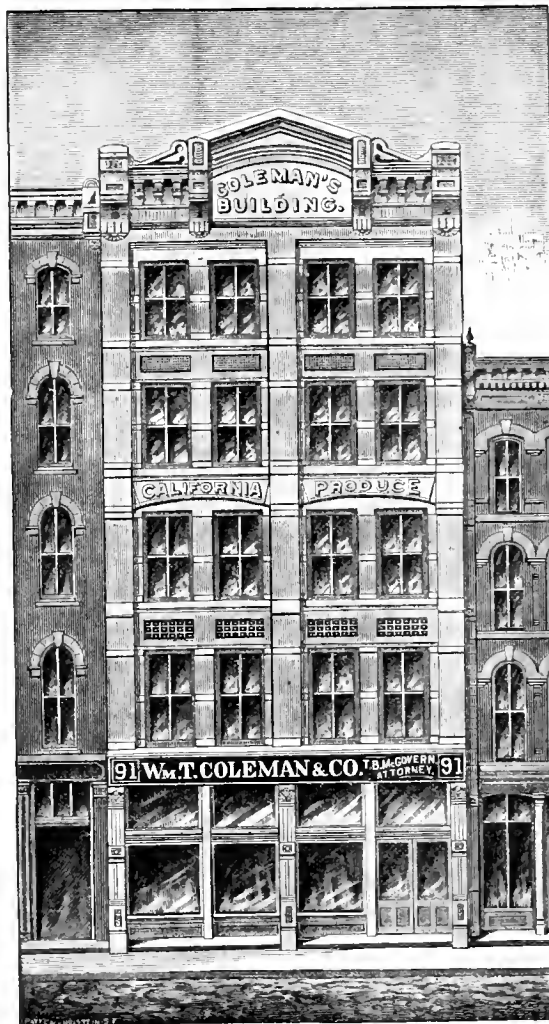
OFFICE 640 CLAY ST., (Up-stairs),
San Francisco, Cal.

Works at Homestead, near Sacramento, Cal

AGENCY OF

WM. T. COLEMAN & CO.

91 MICHIGAN AVENUE, CHICAGO.

California Products a Specialty.

California
Canned
Fruits.

California
Dried
Fruits.

California
Raisins,

California
Wines,

California
Oranges

COLUMBIA AND SACRAMENTO RIVER SALMON,

—AND ALL—

Pacific Coast Products Suited to Eastern Trade.

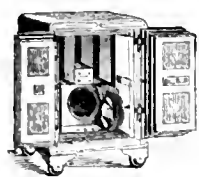
CONSIGNMENTS SOLICITED, AND ALL CORRESPONDENCE

PROMPTLY ATTENDED TO.

T. B. McGOVERN, Manager.

RUPTURE RADICALLY CURED by Dr. Pierce's Great Discovery. Thousands of patients cured at their own homes. No Experiment! It does the Work! **DRS. PIERCE & SON, 704 SAC ST., SAN FRANCISCO, CAL.**

FIRE-PROOF SAFES ALL SIZES.



CHAS. WALTZ, Inventor and Manufacturer of the Waltz Safe. Fire and Burglar Proof Safes, Time Locks, Bank and Vault Locks, a Specialty. Expert Work done in opening and repairing Safes and Locks. Beards Patent Screw Door Burglar Proof Safes and Chests. Sales built to order.

CHAS. WALTZ,
11 Drumm Street, SAN FRANCISCO, CAL.
Write for prices and information.

BUHACH AGAINST INSECTS!

Now is the time to destroy Insects on Trees, Vines, Rose Bushes, or any other plants with **Buhach**, the great

Californian Insect Extremator!

DON'T BUY IT IN BULK, but in original cans. Warranted absolutely pure. Directions for use with each can. Sold by Druggists and Grocers everywhere.

Buhach Producing & Mfg Co.,
151 LEVY ST., Stockton, Cal., and 49 CEDAR ST., New York, Sole Manufacturers.

P. S.—In all cases where the powder fails to do the work, please send us a sample of it by mail, and the name of the dealer, so that we may protect the consumer, as many dealers have been selling spurious insect powders for Buhach. The word "Buhach" is our registered Trade Mark, and no person can sell any other Insect Powder but ours under that name.

GOODYEAR'S
"COLD SEAL"
Rubber Hose,
For Sale by All Dealers.



GOODYEAR RUBBER CO.
R. H. PEASE, JR., } AGENTS.
S. M. RUNYON, }
577 and 579 Market St., SAN FRANCISCO.

WOODLAND WINERY
FOR SALE.

Located at Woodland, Yolo County, Cal.

Complete in all its Appointments. Capacity 120,000 gallons. Steam Crusher, Hand Crusher, two Stills, Syrup Pan, Pumps, and everything Complete. Cooperage in best condition.

TWO-STORY BRICK BUILDING,
125x60 Feet. Fifty rods from Depot.

Three thousand tons Wine Grapes raised here last season. This is a rare chance for engaging in this business. For full particulars inquire at office of

LANDBERGER & SON,
123 California Street, S. F.

—OR TO—
CLARK & CULVER, Proprietors,
Woodland, Cal.



A 1876 S. I. XII.
I. S. 1886 G.

The Industrious never Sink.

GUY E. GROSSE, Broker in Real Estate
Ranches, Residence, Business and Manufacturing Property Bought and Sold on Commission.
Also Publisher of "Sonoma County Land Register and Santa Rosa Business Directory."

Office, No. 312 B St., SANTA ROSA, CAL.

BOSTON BELTING CO.
GOOD HOSE A SPECIALTY.

J. W. CIRVIN & CO.,
24 CALIFORNIA STREET, S. F.

FILTERS
FOR WINES.

GEO. J. HUTCHINGS,
118 N. HOWARD ST., BALTIMORE, MD.

THE WELLINGTON,
21 DUPONT ST.,

Near Market, SAN FRANCISCO.

Handsomely Furnished Rooms
FOR GENTLEMEN ONLY.

HERRMANN & CO.,
HOP MERCHANTS.

Importers and Dealers in

CORKS, BREWERS' AND BOTTLERS' SUPPLIES,
SODA WATER AND WINE DEALERS' MATERIALS.

ALEX. FRIES' & BROS. COGNAC OILS,
ESSENCES AND FLAVORS.

331 SACRAMENTO ST. SAN FRANCISCO.

NOW READY.

THE
REPORT

OF THE

FOURTH ANNUAL

STATE

VITICULTURAL
CONVENTION.

PRICE, ONE DOLLAR.

OFFICE OF THE SAN FRANCISCO MERCHANT.

E. C. HUGHES & CO.,

Publishers,

511 Sansome Street,

CALIFORNIA VINEYARDS.

KRUG CHARLES,
Krug Station, St. Helena, Napa Co., Cal.
Producer of fine Wines and Brandies.

J. C. WEINBERGER, Manufacturer of Wines, near St. Helena.

H. W. CABB, Wine Cellar and Distillery, Oakville, Napa County.

SAN FRANCISCO WINERY, RUEFF & REH-
fuss Proprietors, 116 1/2 Eighth St., S. F., Cal.

MOUNTAIN WINE

From the Celebrated

YERBA BUENA VINEYARD,

Situated 7 miles East of San Jose. One thousand feet above the Valley. In cases or bulk fine old Burgundy and Mountain Riesling.

PAUL O. BURNS WINE CO., Proprietors.
Branch Cellars in San Jose, Cal.
WM. T. COLEMAN & CO., SAN FRANCISCO,
Sole Agents for Chicago and New York

T. & M. E. Tobin & Co.,

PRODUCERS OF PURE

CALIFORNIA WINES & BRANDIES,

Cor. Stockton & O'Farrell Sts.,

San Francisco, Cal.



P. P. MAST & CO.

31 MARKET ST., S. F.

SELL THE WELL AND FAVORABLY KNOWN

BUCKEYE PUMPS.

The simplest and easiest-worked Pump

FOR WELLS OF ANY DEPTH

Ever Offered.

SEND FOR CIRCULAR AND PRICE LIST.

Graham Paper Co.

OF ST. LOUIS.

W. G. Richardson,

PACIFIC COAST MANAGER,

No. 529 Commercial St.,

SAN FRANCISCO, - - - CALIFORNIA.

TELEPHONE No. 1064.

THE CUPERTINO VITICULTURAL SOCIETY

Meets on the evening of the third Thursday of each month at Mr. Montgomery's.

J. C. MERITHW President
J. D. WILLIAM Vice President
R. C. STILLER Secretary

Please address all communications to R. C. STILLER, Gilboville, Santa Clara Co., Cal.

ESTABLISHED IN 1860.

ALL WINE MAKERS

Should drink the

PURE BELMONT

— HAND-MADE —

SOUR MASH WHISKY.

Supplied in lots to suit by

JAMES CIBB, 617 Merchant St.

THE RISDON

IRON AND LOCOMOTIVE WORKS.

Cor. Beale & Howard Sts., S. F.

W. H. TAYLOR, Pres't. **JOSEPH MOORE, Supt.**

BUILDERS OF STEAM MACHINERY

IN ALL ITS BRANCHES.

Steamboat, Steamship, Land Engines

and **BOILERS, High Pressure or Compound.**

STEAM VESSELS of all kinds built complete, with Hulls of Wood, Iron or Composite.
STEAM BOILERS. Particular attention given to the quality of the material and workmanship, and none but first-class work produced.

SUGAR MILLS AND SUGAR-MAKING MACHINERY made after the most approved plans. Also, all Boiler Iron Work connected therewith.

PLUMS. Direct Acting Pumps, for irrigation or City Water Works purposes, built with the celebrated Dwyer Valve Motion, superior to any other Pump.

A. ZELLERBACH,

IMPORTER AND DEALER IN

BOOK, NEWS, FLAT, WRITING PAPER.

MANILA, WRAPPING AND STRAW PAPER,

Colored, Poster and Tissue Paper, Also Envelopes and Twine.

509 CLAY STREET.

A few doors above Sansome, San Francisco, Cal.

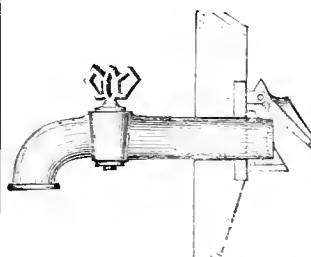
E. L. G. STEELE & CO.,

Successors to

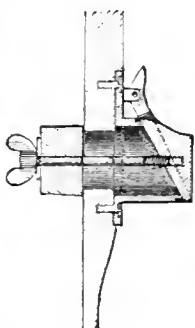
C. ADOLPHE LOW & CO.,
COMMISSION MERCHANTS.

Agents American Sugar Refinery and Washington Salmon Cannery.

THOMAS S. CLAISTER'S
PATENT VALVE ATTACHMENT
FOR WINE AND BEER CASKS.



Claim.—1. The combination, with annular valve-seat secured within a cask behind the bung-hole, of a gravity-valve provided with a threaded socket, and a spindle adapted to engage the socket and securely hold the valve against its seat, substantially as herein.



2. The swinging or gravity valve on the inner surface of the door of a cask, and controlling its bung-hole, in combination with the means for positively holding said valve closed. When the wine is ready, it can be drawn off by simply inserting the faucet.

For further particulars apply to

THOMAS S. CLAISTER,
Sonoma, Sonoma County, Cal.

OUR NATIVE WINE SHIPMENTS BY SEA.

PER P. M. S. S. CO'S. STR. COLIMA, MAY 22, 1886.

TO NEW YORK.

MARKS.	SHIPPERS.	PACKAGES AND CONTENTS.	GALLONS.	VALUE.
B D & Co, New York.	B Dreyfus & Co.	550 barrels Wine.	25570	\$11150
S & Co, New York.	C Anduran & Co.	50 barrels Wine.	2357	876
E M, New York.	"	50 barrels Wine.	2356	884
G, New York.	J Gundlach & Co.	92 barrels Wine.	4466	2427
Total amount of Wine.			31,773	\$15,337

TO CENTRAL AMERICA.

J J A, Champerico.	McCarthy Bros & Co.	20 cases Wine.	100	70
V A, Champerico.	"	2 barrels Wine.	96	20
M G, Champerico.	"	1 keg Wine.	10	6
R H, Champerico.	Bingham & Pinto.	1 cases Wine.	20	16
Total amount of Wine.			266	\$162

TO MEXICO.

A V, Acapulco.	Urruela & Urioste.	1 cask Red Wine.	60	\$25
A H & Co, Acapulco.	"	10 cases Whiskey.	90	90
Total amount of Wine.			60	\$25
Total amount of Whiskey, 10 cases.				90

MISCELLANEOUS SHIPMENTS.

DESTINATION.	VESSEL.	RIG.	GALLONS.	VALUE.
Guayaquil.	Percy Edward.	Brig.	481	\$240
Honolulu.	Discovery.	Barkentine.	59	60
China.	City of Peking.	Steamer.	5	6
Japan.	"	Steamer.	286	223
Singapore.	"	Steamer.	100	85
Tahiti.	Raiatea.	Steamer.	5191	1647
Victoria.	Mexico.	Steamer.	172	167
Total shipments by Panama steamers.			35,099 gallons.	\$15,524
Total shipments by other sea routes.			6,294 "	2,428
Grand totals.			41,393	\$17,952

TO NEW YORK—PER STEAMER SAN JOSE, MAY 31.

A V Co, New York.	Walter, Schilling & Co.	94 octaves Brandy.	2334	\$3900
B D & Co., New York.	B Dreyfus & Co.	500 barrels Wine.	23480	9500
"	"	84 half barrels brandy.	2673	4800
G, New York.	J Gundlach & Co.	85 barrels Wine.	4115	1846
"	"	2 half barrels Wine.	3	8
C Harley, New York.	Chas Harley & Co.	1 package Wine.	5	5
W J, under M C H, in diamond	hawley Bros.	2 packages Wine.		47
"	"	1 package Brandy.		8
Total amount of Wine, 2 packages and.			27,600	\$11,398
Total amount of Brandy, 1 package and.			5,007	8,708

TO CENTRAL AMERICA.

S & S, Champerico.	Schwartz Bros.	36 cases Wine.	180	\$144
E W, Acapulco.	Daniel Brooks.	2 barrels Wine.	123	150
M C, Acapulco.	Urruela & Urioste.	6 cases Wine.	30	24
Total amount of Wine.			333	\$318

TO MEXICO.

J G, Mazatlan.	T V de Laveaga.	12 casks Wine.	119	\$70
"	"	1 barrel Wine.	33 1/2	20
"	"	1 keg Wine.	20	32
"	"	2 kegs Wine.	30	35
"	"	1 keg Wine.	20	21
Total amount of Wine.			222	\$180

TO SOUTH AMERICA.

G B & Co.	J W Grace & Co.	4 cases Wine.	201	\$16
-----------	-----------------	---------------	-----	------

MISCELLANEOUS SHIPMENTS.

DESTINATION.	VESSEL.	RIG.	GALLONS.	VALUE.
Tahiti.	Tahiti.	Brig.	100	\$98
Honolulu.	Zealandia.	Steamer.	1643	1613
China.	San Pablo.	Steamer.	131	79
Honolulu.	Australia.	Steamer.	1131	1294
Honolulu.	Discovery.	Barkentine.	60	60
China.	City of Peking.	"	3	8
Singapore.	"	Steamer.	48	35
Japan.	"	Steamer.	200	224
Victoria.	Queen of the Pacific.	Steamer.	314	347
Hamburg.	Ocean.	Bark.	655	240

THE COOS BAY STAVE & LUMBER CO.

— MANUFACTURERS OF ALL KINDS OF —

COOPERAGE GOODS!

Especially invite the attention of Wine Men to their unsurpassed facilities for supplying packages from a

5-GALLON KEG TO A 160-GALLON PIPE OR PUNCHEON.

Our machinery enables us to execute all orders with promptness and economy. Price List on application.

OFFICE: 323 FRONT STREET,

WORKS..... BRANNAN ST., NEAR EIGHTH.

THE AMERICAN CHURN



Excels in the Art of Churning, Washing, Settling and Working Butter. THE AMERICAN IS PERFECTLY CYLINDRICAL IN FORM leaving no possible opportunity for cream to stick to corners—as is invariably the case with other than round churns; thus works easily, rapidly, and will not make streaked butter. There is no partially churned cream mixed with the butter to make it steaked or impair its keeping quality. The dasher follows the radius of churn body loosely while the blades give the cream a rapid counter-current to and fro movement, agitating the cream thoroughly and making granular gilt-edge butter in from 2 to 10 minutes. Try an American Churn. We guarantee satisfaction, and will send on trial to responsible parties. Price list of American Churns: No. 1—With legs, 4 1/2 gals., \$6; No. 2—With legs, 7 gals., \$8; No. 3—With legs, 9 gals., \$10; No. 4—With legs, 12 gals., \$12; No. 5—With legs, 18 gals., \$15; No. 6—Power, 20 gals., \$20.



CALF FEEDERS

— AND —
Weaners
 FOR REARING STOCK BY HAND
 Both Proved Successful and Indispensable.



Funk's Calf Nipple is just as important for calves as the nursing bottle is for children. Better calves raised with less trouble, no air swallowed, no fingers chewed, no ears sucked, teaches the calf to feed from the pail without assistance. Price, 75 cents; postpaid, 85 cents. **Rice's Weaners Prevents Calves and Pigs Sucking Themselves or Each Other.** No hindrance to either eating or drinking, no injury, thoroughly tested, is used and endorsed by the best stock raisers in the United States, and acknowledged by all to be the best thing ever made for the purpose. **PRICES:** For Calves, 50 cents; postpaid, 55 cents. Yearlings, 75 cents; postpaid, 80 cents. Full-grown animals, \$1. postpaid, \$1.12.

C. C. WICKSON & CO.,

38 California Street and 106 Davis Street,

San Francisco.

WM. T. COLEMAN & CO.,

Commission Merchants.

SAN FRANCISCO,

NEW YORK,

CHICAGO,

Agency WM. T. COLEMAN & Co.,

Agency WM. T. COLEMAN & Co.

ASTORIA, Or.,

LONDON.

With Agents and Brokers in every Commercial City of Provinces in the Union.

WE MAKE A SPECIALTY OF HANDLING THE

RAISIN CROP OF CALIFORNIA!

And amongst others we are Agents for

Riverside Fruit Company of Riverside, Miss Mary F. Austin of Fresno, McPherson Bros. of Orange, T. C. White of Fresno.

With many other of the Most Prominent Curers of this State.

Our Facilities for Promptly Placing and widely Distributing Their Produce Can be Ascertained from the Above well-known Curers.

We are also Large Handlers of

ORANGES, DRIED FRUITS, HONEY AND BEANS

IN THE EASTERN STATES.

Advances Made when Required, and Full Information of Markets Promptly Given. Address

WM. T. COLEMAN & Co.

MARKET & MAIN STS., S. F.

THE IMPORTANCE OF GOOD BOTTLING.

In its issue of April 10th, *Harper's Weekly Gazette*, of London, makes the following pertinent observations:

There are few operations more important to the wine merchant than that of bottling, and it is astonishing how often it is that little care or method is bestowed upon it. This delicate operation has a decisive influence upon the conduct of the produce of the vine, and to be performed with success requires many conditions.

Space will not allow us to enter fully into the intricate question of the exact age necessary to various wines at the time of bottling, nor of the climatic influences that require to be studied to insure success. One point, however, we would touch upon, and that worthy of the attention of all bottlers—the choice of bottles and corks. The ordinary bottle-glass is composed of silica, lime, alumina, oxide of iron, and potassa or soda. It is to this last ingredient that attention should be called; it is this potassa which is acted upon by the acids of the wine, but owing to its rendering the glass more readily fusible, the glass manufacturers, to economize fuel, frequently use it in large quantities. A too plentiful proportion of alumina will also render a bottle peculiarly liable to attack of the acids, the salt of alumina producing a discoloration of the wine and imparting to it a disagreeable taste. The bottle becomes corroded, and a flakey deposit is detached from it; at the same time crystals of different salts are deposited.

Bottles which are covered with little specks should be rejected, as such are signs that the glass has been badly fused or strained; the same remarks apply to bottles that present folds, which proves that the glass is short and brittle, containing a too great proportion of old broken glass. Glass that has been re-melted does not contain the same cohesion as glass obtained from a first fusion. For a bottle to give satisfactory results, it must have had in a proper manner the required re-baking, and must have cooled slowly and regularly. If not, and the operation has been done carelessly, the glass is not strong, and any sudden change of temperature, the pressure caused by the carbonic acid, or even the mere weight of the wine, will suffice at a given moment to break the bottle. Should such an accident happen, there will be noticed in the broken glass, a quantity of small crystals, the shape of needles, which indicate that the several ingredients have not cooled at one and the same time, and consequently disjoint themselves.

In the case of ordinary wines, breakage should not exceed two per cent. with well manufactured bottles. For sweet wines—which however do not much affect bottles in this country—bottled prematurely, the breakage may vary from ten to fifteen per cent., even with well made bottles, save in certain vintages when the breakage may be as high as twenty, thirty, or even forty per cent., under the influence of peculiar circumstances which depend upon the quality of the vintage, and for which the glass-maker can not be held responsible.

It should also be borne in mind, that in order to bin the bottles properly in the cellar, the bottles must be of a regular shape and size. A slight difference in the size of the bottles is a frequent cause of breakage. The careful drying of the bottles after washing must also be carefully supervised, as imperfectly dried bottles may weaken or

spoil a delicate wine. The bottles should be rinsed at least six hours before drawing, and should be allowed to drain upon a tray or platform perforated with holes. It should also be necessary to see that when bottles have been rinsed a long time previous to bottling, that they should not be left in a cellar or place where humidity might give to the wine a nasty flavor.

With regard to corks, too great economy is to be avoided, owing to their influence upon the quality of the wine. Hard corks are of bad quality, and are apt to cause breakage of bottles; worm-eaten corks are made of bad material. They deposit in the bottle some sort of powder, which gives a very unpleasant flavor to the wine. A good cork should have a soft, regular and uniform pulp, and must be very porous and very supple. To add to this suppleness, and to take away the dust which covers the corks, they are generally placed for several hours in water. Corks thus soaked in boiling water become extremely soft, go in too far into the neck, and cork the bottle very badly. It is, therefore, better to use lukewarm water, or better still to soak the corks in wine. Some practical bottlers assert that they have found it better to use the corks without soaking them at all, but even then they should be washed to free them from all impurities.

W. E. CHAMBERLAIN, JR.

T. A. ROBINSON.



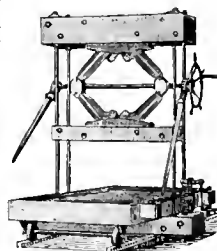
Life Scholarships, \$75.

DAY AND EVENING SESSIONS.

Ladies Admitted into all Departments.

27 No Vacations. Send for Circular.

**WORTH'S IMPROVED
PATENT
COMBINED TOGGLE LEVER
—AND—
SCREW PRESS.**



I desire to call the attention of wine and Cider makers to my Improved Press. With this Press the movement of the follower is fast at the commencement, moving one and a half inches with one turn of the screw. The last turn of the screw moves the follower one-sixteenth of an inch. The follower has up and down movement of 26½ inches, with the double platform run on a railroad track. You can have two curbs, by which you can fill one while the other is under the press, thereby doing double the amount of work of any other press in the market. Model on exhibition at the offices of the Board of State Viticultural Commissioners. I also manufacture Horse Powers for all purposes, Ensilage Cutters, Plum Pits, Worth's System of Heating Dairies by hot water circulation. 27 Send for circular.

W. H. WORTH,

Petaluma Foundry and Machine Works,
Petaluma, Sonoma Co.; Cal.

Testimonials from I. DeTurk, Santa Rosa; J. B. J. Portal, San Jose; Ely T. Sheppard, Glen Ellen; Kate F. Warfield, Glen Ellen; J. H. Drummond, Glen Ellen; Joseph Walker, Windsor; John Hinkelman, Folsom; Wm. Pfeiffer, Guberville; J. & P. Muller, Windsor; R. C. Stiller, Guberville; Lay Clark & Co., Santa Rosa; Vackey Freres, Old San Bernardino; J. F. Crank, William Allen, San Gabriel; James Finlayson, R. & J. J. Gobbi, Healdsburg; W. Metzger, Walter Phillips, Santa Rosa; J. Lawrence Watson, Glen Ellen; Geo. West, Stockton; can be had by applying for printed circulars.

Valuable Patent FOR SALE. The Claus Improved

DRAP-VINE TRELLIS.

LATELY PATENTED, ATTRACTS GREAT ATTENTION among vintners everywhere as far surpassing any other form by efficiency and perfection. Generally acknowledged to be a meritorious invention and an unrivaled progress in viticulture, it will pay its application tenfold. It is truly a first-class acquisition.

RIGHTS OF THIS PATENT

FOR SALE BY

AMERICAN PATENT AGENCY,

188 & 190 WEST 5th ST.,

Cincinnati, Ohio.

Full descriptive illustrations, costs, etc., given by me above and the inventor

C. H. TH. CLAUS,

Cor. Iowa & Keokuk Sts., St. Louis, Mo.

DR. A. FONTAINE'S PREPARATION



WILL DEVELOP A BEAUTIFUL FORM in sixty days, the effect of which is permanent and plainly discernible in ten days. Where a perfect bust is already possessed, it will preserve the same firm, and perfect in shape. This is a carefully prepared prescription of an eminent French physician and scientist, and is free from lead and all injurious ingredients, and will not injure the most delicate skin. A fair trial will not only convince you of its efficacy, but will elicit your sincere thanks and enthusiastic praise. Mailed secure from observation on receipt of price, \$1.00. Sealed circulars, 4 cts. Sold by Druggists. Address, **MADAME FONTAINE, 19 East 14th St., N. Y.**

CHOICE OLD WHISKIES

PURE AND UNADULTERATED.

We Offer for sale on Favorable Terms to the Trade,

CATHERWOOD'S

Celebrated Fine Old Whiskies,

OF THE FOLLOWING BRANDS, NAMELY

"CRANSTON CABINET"

"A.A.A." "CENTURY"

"OLD STOCK"

"HENRY BULL"

"DOUBLE B"

"MONOGRAM"

VERY OLD AND CHOICE, IN CASES OF ONE DOZEN QUART BOTTLES EACH,

"BRUNSWICK CLUB" Pure Old Rye, And "UPPER TEN."

For Excellence, Purity and Evenness of Quality the above are unsurpassed by any Whiskies imported. The only objection ever made to them by the manipulating dealer being that they cannot be improved upon.

Dickson, De Wolf & Co.

SOLE AGENTS,

SAN FRANCISCO, - - - - - CAL.

E.C. HUGHES PRINTER
511 Sansome St., S. F.

THE "SAN FRANCISCO MERCHANT" Is the Only Paper that Represents the GRAPE, RAISIN AND WINE INDUSTRIES OF CALIFORNIA.

It is Replete with Accurate
and Valuable Information.

SUBSCRIPTION, - - - THREE DOLLARS A YEAR.

(Payable in Advance.)

E. C. HUGHES & Co., Publishers,

511 Sansome Street.

AMERICAN GRAPE-ROT. PHOMA UVICOLA.

TAINITY, ALA, March 31, 1886.

TO THE EDITOR OF THE WINE AND
FRUIT GROWER, NEW YORK.

Dear Sir, I hope you will either write me a private letter, or publish in your April number, your diagnosis and remedy for the grape-rot. My Concord, especially for the last two years, have been an almost entire failure on account of it. I think it is what is known as the "Greeley-Rot," being first known the year Greeley was a candidate for President. I think it is called *Phoma Uvicola* by some, though I do not know that to be the true name.

I will describe it: First, a little black speck is seen on it, just about the time the grape is of full size. This speck soon grows and widens into a circular brown rim, or disk, at one side of the grape, till it forms a hard callous, causing ripening and a suspension of growth, and completely destroys the fruit. This soon spreads over the whole vine, and attacks all the vines, till at last the whole vineyard is more or less affected. The Ives, Hartfords, Dianas, and a few other ironclads, are not very apt to suffer much, but all our choice grapes, especially Rogers' Hybrids and the Concord, were completely cut off by it last year and the year before.

What are we to do to arrest this evil? Tell me, if you can, what is the cause and what is the remedy? Is it the work of an insect, fungus, mildew, or what? It seems worse in wet seasons than dry; worse after a full crop the previous year; worse on old vines than young ones. Can any medicine,

or manure, or mode of culture, prevent? Or must we calmly submit? If so, it seems we might almost as well quit trying to raise grapes. Please answer fully.

W. Q. SEWELL.

ANSWER.—If anybody anywhere has found a remedy for grape-rot, we have not yet heard of it. The man who finds one which is effective, should have a pension and a monument.

Our correspondent has not fully described the appearance and development of the disease. The nut he asks us to crack is the *Phoma Uvicola*, and has been fully described in this journal (see issues for April and May, 1886) by Col. Alexander W. Pearson, who has made the most careful microscopic study of it in conjunction with Dr. E. C. Bidwell. The attack begins on the leaf, and appears in June in the shape of a small, circular yellow spot, about one-sixteenth of an inch in diameter when first seen. This rapidly enlarges to the size of nearly half an inch, when the tissue of the leaf, becoming disorganized, crumbles away, leaving the foliage with the appearance of having been perforated with a shower of bullets. On the field of these yellow spots there will soon be visible several minute black specks. Under a lens magnifying fifty diameters, these specks will appear as spherical bodies, similar to mustard-seed shot, embedded in the tissue of the leaf, and located in a straggling circle equi-distant from the centre of the spot. These little black globes are the perithecia, or spore capsules, of the fungus. When the Concord grape is nearly grown, there will be seen on the fruit affected a whitish speck hardly one line in diameter. This white speck is soon surrounded by a brownish or black areola, shading off

in concentric rings, which extend their circumference until, when half the berry is implicated, the affected side has the appearance of a dead calf's eye.

It will thus be seen that the disease is a fungus, and it should be studied as such. It is propagated by spores, or fungus seed, and these are developed in warm, muggy weather, and especially after a thunder shower following a hot day. They are also believed to be borne on the dew on warm nights, when the dew is heavy. It is more apt to attack a berry with a good deal of bloom than one with little or none, and will affect weak vines more readily than strong ones. It is said that vines fertilized with stable manure, especially such as has not been well rotted and composted, are more liable to attack; also old vines more than young ones.

As to the remedy—well, that conundrum is yet to be answered. The man who first finds a remedy for this disease should have as big a reward as the one who finds one for the phylloxera. The remedy is so far only one of prevention. Col. Pearson (already quoted), who has made a very careful study of the disease, and tested many so-called remedies, has adopted the theory that the propagation of the disorder, like small-pox, is through the presence of the specific germ of infection, and the only remedy lies in preventing contact of the germ with the leaf and fruit. His method of prevention was twofold. The first was the troublesome and laborious plan of "bagging the grapes," or tying on bags made of manilla paper. This must be done before the rot makes its appearance, and may be done by women, or even children of ten years of age or older. It was found that grapes bagged when about half grown, escaped the rot; while those growing on the same or neighboring vines, were destroyed.

The second plan was to cover the grapevine with a sort of roof, whereby the dews

and rain were kept off. The material used was a roof formed of muslin, about sixteen inches wide, stretched along on frame-work about ten inches above the vine. This shelter kept off the dews, and was found to be a good preventive measure, and effectual for practical purposes.

There are, however, other considerations that come in here which should not be omitted in discussing preventive measures in a general way. First, we note the fact that the Concord grape and its whole family are out of their habitat when planted below the 36th parallel of latitude. The consequence is a breaking up of the vitality of the grape after a few years, and a failure of crop from one cause or another. This might be remedied to some extent by grafting on *Elativis* or *Cinerea* roots, or their hybrids. The practice of planters about Chattanooga has been to push their Concord "for all they are worth" until the fall, and then root them out and replant. In that case the planter should keep a supply of nursery stock in constant readiness for these replantings.

There is another preventive remedy which is perhaps the best of all, namely, "plant some other grape." If the grower is planting for wine, he should not overlook, first, *Cynthiana*; second, *Norton*; third, *Black Pearl* (Schraidd's Seedling); fourth, *Lenoir*; fifth, *Clevener*; sixth, *Emmelan*, *Devereux*, etc. If planting for table, white or purple grapes sell best, and so we at once come upon a grand array of most beautiful, choice fruit in the following list, viz: *Empire State*, *Duchess*, *Noah*, *Missouri*, *Riesling*, and *Faith*, among the white; and *Delaware* (grafted), *Lindley* (also grafted), *Amber*, *Beauty*, *Jefferson*, and *Vergennes* (the last two are safest on other roots than their own) representing the red or purple family. It will be noticed that in all cases where the *Labrusca* variety is used, we recommend grafting on stock native to the soil.

SULPHUR! SULPHUR! SULPHUR!

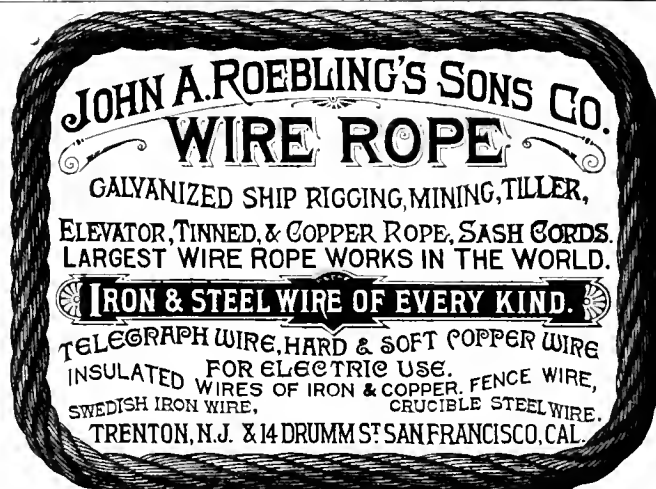
FOR SALE IN

QUANTITIES TO SUIT.

WM. CLUFF & CO.,

WHOLESALE GROCERS,

16, 18, 20 and 22 Front St., Cor. Pine, S. F.



THE AMERICAN SUGAR REFINERY COMPANY,

MANUFACTURERS OF THE

CELEBRATED CUBE SUGAR,

Supplies Only Exporters and the Jobbing Trade.

This Company manufactures all the Grades of HARD and COFFEE SUGARS and SYRUPS. Special attention given to the making and Packing of Loaf Sugar for Export.

208 CALIFORNIA STREET,

SAN FRANCISCO, CAL.

E. L. G. STEELE,
President.

Dr. MINTIE

THE SPECIALIST,

No. 11 KEARNY ST., San Francisco.

Treats all Chronic, Special and Private Diseases with Wonderful Success.

THE GREAT ENGLISH REMEDY



Is a never-failing cure for NERVOUS DEBILITY, EXHAUSTED VITALITY, SEMINAL WEAKNESS, SPERMATORRHOEA, PROSTATITIS, IMPOTENCY, Paralysis and all the terrible effects of self abuse, youthful follies and excesses in mature years, such as loss of Memory, Lassitude, Nocturnal Emissions, Aversions to Society, Dimness of Vision, Noises in the Head, excess in drinking intoxicating liquors, the vital fluid passing unobserved in the urine, and other diseases that lead to insanity and death.

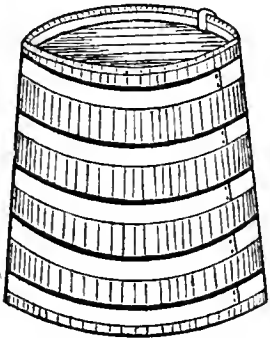
Dr. Mintie who is a Regular Physician Graduate of the University of Pennsylvania, who will agree to forfeit \$500 for a case of this kind the **Vital Restorative**, (under his special advice and treatment) will not cure, or for anything impure or injurious found in it. **Dr. Mintie** treats all PRIVATE DISEASES SUCCESSFULLY WITHOUT MERCURY. **Consultation Free.** Thorough examination and advice, including analysis of urine, \$5. Price of **Vital Restorative**, \$1.50 a bottle or four times the quantity, \$5; sent to any address upon receipt of price, or C. O. D., secure from observation, and in private name if desired, by **Dr. A. E. Mintie**, 11 Kearny street, San Francisco, Cal. Send for pamphlet and list of questions.

SAMPLE BOTTLE FREE.

Will be sent to any one applying by letter stating symptoms, sex and age. Strict Secrecy in regard to all business transactions.

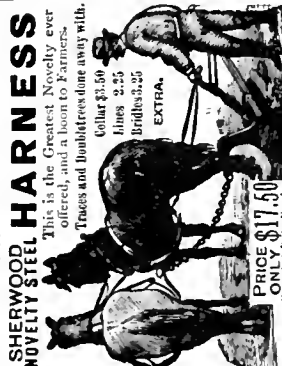
DR. MINTIE'S KIDNEY REMEDY NEPHRETICUM, cures all kinds of Kidney and Bladder Complaints, Gonorrhoea, Gleet, Leucorrhoea, etc. For sale by all Druggists; \$1 a bottle, 6 bottles for \$5.

DR. MINTIE'S DANDELION PILLS are the best and cheapest **DYSPEPSIA** and **BILIOUS** cure in the market. For sale by all Druggists.

REDWOOD TANKS**F. KORBEL & BROS.**

727 BRYANT ST., S. F.,

Or at NORTH FORK MILL, Humboldt Co., Cal.



WE PAY THE FREIGHT

SHERWOOD HARNESS

This is the Greatest Novelty ever offered, and a boon to Farmers. Traces and Hobbles done away with.

Collar \$3.50
Lines 2.25
Bridles 3.25
EXTRA.PRICE \$17.50
ONLY \$1.50
Redwood Harp S.

TRUMAN, ISHAM & HOOKER, San Francisco.

IF NOT SATISFACTORY WE PAY ALL FREIGHT

J. N. KNOWLES, MANAGER

EDWIN L. GRIFFITH, SR. RETARY

ARCTIC OIL WORKS.

MANUFACTURERS OF

Sperm Whale, Elephant and Fish Oils, Skid Grease.

WHALE OIL SOAP.

ESPECIALLY ADAPTED FOR VINEYARDS AND FRUIT ORCHARDS.

OFFICE—28 CALIFORNIA STREET, S. F., Cal.

EL PINAL VINEYARD,

Stockton, Cal.

Cuttings and Vines For Sale of the following varieties:

PETIT BOUSCHET, MONDEUSE, VERDOT, ALICANTE BOUSCHET, BOAL CABERNET FRANC, MALBECK, CABERNET SAUVIGNON, MANTUO DE PILAS, MANTUO CASTILLANO, PEDRO XIMENEZ, MALMSEY, LENOIR PALOMINO, VERDELHO, TANNAT, PERUNO, VEGA.

And other recently imported varieties, including True Port and Sherry varieties from Spain and Portugal.

GEO. WEST, Stockton, Cal.

TO CLARIFY WINES,

(BOTH WHITE AND RED)

WAHL BROS.**GRANULATED ISINGLASS**

HAS NO EQUAL.

It is SUPERIOR and CHEAPER than any other ISINGLASS in the Market.

Try It. Send for Sample.

JOHN T. CUTTING & CO., Agents,

23 CALIFORNIA STREET,

San Francisco.

CLARIFYING AND PRESERVING WINES.

The undersigned having been appointed Sole Agents on the Pacific Coast by Messrs. A. BOAKE & CO, Stratford, Eng., for their renowned

LIQUID ALBUMENS,

Beg to call the attention of Wine Growers and Wine Merchants to the following articles, the superior merit of which has been confirmed by Silver Medals, the highest awards given at the International Exhibition of Paris 1878, Bordeaux 1882, and Amsterdam 1883, viz:

**LIQUID ALBUMEN FOR RED WINES,**

Claret, Burgundy and Port.

**LIQUID ALBUMEN FOR WHITE WINES,**

Hock, Sautes, Sherry and Madeira, also for distilled liquors; Whisky, Gin, etc., etc.

**WINE PRESERVER,**

For Preserving the Brilliance of the wines.

**WINE CORRECTOR,**

For Correcting the Roughness of Young Wines.

**WINE RESTORER,**

For Restoring Badly Made or Badly Treated, Harsh and Tart Wines.

A trial according to directions will prove the superior qualities of these finings. For sale in quantities to suit by

CHARLES MEINECKE & CO. Sole Agents,

314 SACRAMENTO STREET, SAN FRANCISCO.

The Contest Settled.

The Documents Speak For Themselves.

Below We Publish the Awards as Given, Diploma, Gold Medal and Special Mention.

HIGHEST AWARD

--AT THE--

New Orleans Exposition

--TO THE--

ANTISELL PIANOS

--OF--

SAN FRANCISCO, CAL.

IT WILL INTEREST THE MUSICAL PUBLIC AND persons interested in the purchase of Pianos to read the following Jury's award and congratulatory of the United States Commissioners at the New Orleans Exposition to the T. M. Antisell Piano Company of San Francisco, Cal:

THE WORLD'S INDUSTRIAL AND COTTON CENTEN-
SIAL EXPOSITION.

NEW ORLEANS, MAY 29, 1885.
MESSRS. T. M. ANTISELL PIANO CO.—GENTLEMEN: At the closing of the World's Industrial and Cotton Centennial Exposition, allow us to congratulate you on your success in being awarded the highest award of merit for your Pianos over all American and foreign exhibitors and competitors. That a California manufacturer should win the first prize for the best Piano in the World we consider well worthy of mention by United States Commissioners of this Exposition.

Frank Bacon, Prest, Bd. U. S. Com., Kansas,	"	"	"
George L. Shroup, " " Idaho,	"	"	"
Robert W. Furnas, " " Nebraska,	"	"	"
John C. Keffer (acting), " " Ohio,	"	"	"
K. E. Flemming, United States Com'r, Dakota,	"	"	"
John S. Harris, " " Montana,	"	"	"
E. W. Allen, " " Oregon,	"	"	"
E. M. Murphy, " " Arizona,	"	"	"
F. W. Noble, " " Michigan,	"	"	"
W. H. Sebring, " " Florida,	"	"	"
P. M. Wilson, " " N. Carolina,	"	"	"
J. C. Truman, " " New York,	"	"	"
E. Spencer Pratt, " " Alabama,	"	"	"
E. J. Koche, " " S. Carolina,	"	"	"
C. L. Parrow, " " Louisiana,	"	"	"
Henry Merrell, " " Wyoming,	"	"	"
P. Langhammer, " " New Mexico,	"	"	"

THE WORLD'S INDUSTRIAL AND COTTON CENTEN-
TENNIAL EXPOSITION, NEW ORLEANS.**JURY REPORT**

Application No. Special.
Group Class.

COMPETITION.

The undersigned jurors in the above entitled class having carefully examined the exhibit made by the ANTISELL PIANO COMPANY OF SAN FRANCISCO, CAL., and all competing exhibits, concur in recommending the award of a FIRST-CLASS MEDAL AND DIPLOMA, THE HIGHEST AWARD OF MERIT FOR PIANO EXHIBIT FOR STRENGTH, DURABILITY, EXCELLENCE OF TONE, AND FOR THE SUPERIOR QUALITY OF LUMBER USED IN THE CONSTRUCTION.

Dated this 27th day of May, 1885.

JAS. C. TRUMAN, Jurors.
FRANK BACON, Jurors.
GEO. L. SHROUP, Jurors.

It will be observed that the President of the United States Board of Commissioners, Governor Bacon of Kansas, was also a member of the jury that gave the Antisell piano award; also Colonel Truman of New York and Colonel Shroup of Idaho. These gentlemen not only signed our jury report, but also the special mention. We thus give positive proof of our victory. Four other awards are claimed by piano manufacturers, but we have never seen any evidence of their premiums, not even to the value of a leather medal—simply their own assertion. False telegrams and publications from New York won't humbug Californians. It won't do to say that the Antisell pianos were not entered for exhibition or competition. No piano could be got into the exhibition unless regularly entered. New York manufacturers are trying to break down our awards, as they don't like to see San Francisco carry off the honors.

T. M. Antisell Piano Co.

24 to 28 ELLIS ST., S. F.

HONOLULU CASTLE & COOKE, SHIPPING AND

COMMISSION MERCHANTS

Honolulu, Hawaiian Islands.

AGENTS FOR

THE KOHALA SUGAR CO.,
THE HAIKU SUGAR CO.,
THE PAPA'IKOU SUGAR PLANTATION
THE WAIALUA SUGAR PLANTATION
THE PAIA PLANTATION
A. H. SMITH & CO.,
THE N. E. M. LIFE INSURANCE
CO. BOSTON.
THE UNION INSURANCE CO.
OF SAN FRANCISCO.
THE GEO. F. BLAKE MFG CO.,
STEAM AND VACUUM PUMPS,
D. M. WESTON'S CENTRIFUGAL
MACHINES.

WM. G. IRWIN & CO.

SUGAR FACTORS AND

COMMISSION AGENTS

Honolulu, H. I.

AGENTS FOR—

HAKALAU PLANTATION.....Hawaii
NAALEHU PLANTATION.....Hawaii
HONCAPO PLANTATION.....Hawaii
HILEA PLANTATION.....Hawaii
STAR MILLS.....Hawaii
HAWAIIAN COTON & SUGAR CO.....Maui
MAKEE PLANTATION.....Maui
WAIHEE PLANTATION.....Maui
MAKEE SUGAR CO.....Kauai
KEALIA PLANTATION.....Kauai

Agents for the

OCEANIC STEAMSHIP COMPANY.

WINE WANTED.

Having more orders than we can fill, we offer our services as

BROKERS

— to —

PRODUCERS ONLY.

CORDELIA WINE COMPANY,

909 Mission Street, San Francisco.

ANGLO - NEVADA Assurance Corporation

— OF —

SAN FRANCISCO, CAL.
FIRE and MARINE.

Subscribed Capital \$2,000,000.

OFFICE: 410 PINE ST.

DIRECTORS:

LOUIS SLOSS, J. W. MACKAY,
J. B. HAGGIN, W. F. WHITTIER,
J. ROSENFELD, E. E. EYRE,
J. L. FLEGG, E. L. GRIFFITH,
G. L. BRANDER, J. GREENBAUM,
W. H. DIMOND.

This Corporation is now prepared to receive applications for Fire and Marine Insurance.

G. L. BRANDER, President
J. L. FLEGG, Vice-President
G. P. FARNFIELD, Secretary
J. S. ANGUS, Assistant Manager

Bankers: The Nevada Bank of San Francisco.



THE SOUTHERN PACIFIC CO.,

Respectfully invites the attention of TOURISTS AND PLEASURE SEEKERS to the SUPERIOR FACILITIES afforded by the "Northern Division" of its line for reaching the principal

SUMMER AND WINTER RESORTS OF CALIFORNIA

WITH SPEED, SAFETY AND COMFORT.

Pescadero, Menlo Park, Santa Clara, San Jose, Madrone Mineral Springs, Gaiety Hot Springs.

-MONTEREY-

THE QUEEN OF AMERICAN WATERING PLACES

Camp Goodall, Aptos, Loma Prieta, Monte Vista, New Brighton, Siquel, Camp Capitola, and

SANTA CRUZ.

PARAISO HOT SPRINGS.

EL PASO DE ROBLES

HOT AND COLD SULPHUR SPRINGS,
And the only Natural Mud Baths in the World.

This Road runs through one of the richest and most fertile sections of California, and is the only line traversing the famous Santa Clara Valley, celebrated for its productiveness, and the picturesque and park-like character of its scenery; as also the beautiful San Benito, Pajaro, and Salinas Valleys, the most flourishing agricultural sections of the Pacific Coast.

Along the entire route of the "Northern Division" the tourist will meet with a succession of Extensive Farms, Delightful Suburban Homes, Beautiful Gardens, Immense Orchards and Vineyards, and Luxuriant Fields of Grain; indeed a continuous panorama of enchanting Mountain, Valley and Coast scenery is presented to the view

Characteristics of this Line:

GOLD ROAD-BED STEEL RAILS, ELEGANT CARS,
LOW RATES, FAST TIME, FINE SCENERY.

TICKET OFFICE—Passenger Depot, Townsend street, Valencia St. Station, and No. 613 Market Street, Grand Hotel.
A. C. BARNETT, H. R. JUDAH,
Superintendent, Asst. Pass. and Tkt. Agt.

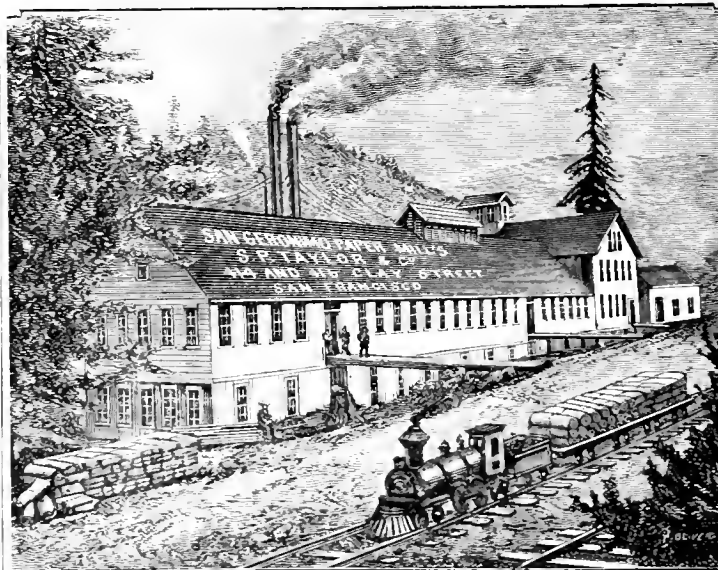
1856.

PAPER.

1886.

S. P. TAYLOR & CO.

Manufacturers of and Dealers in Paper of all kinds.



Book, News, Manila, Hardware, Straw and Tissue

PAPERS.

Paper Bags, Twines, Etc., Etc.

PRINTED WRAPPERS A SPECIALTY.

Proprietors Pioneer and San Geronimo Mills. Agents for South Coast (Straw) Mills.

414 and 416 CLAY ST., SAN FRANCISCO.

S. P. COMPANY.

QUICK TIME AND CHEAP FARES

To Eastern and European Cities

Via the Great Transcontinental All Rail Routes

OF THE —

SOUTHERN PACIFIC COMPANY.

(PACIFIC SYSTEM)

Daily Express and Emigrant Trains make prompt connections with the several Railway Lines in the East,

CONNECTING AT

NEW YORK AND NEW ORLEANS

with the several Steamer Lines to

ALL EUROPEAN PORTS.

PULLMAN PALACE SLEEPING CARS

attached to Overland Express Trains.

THIRD-CLASS SLEEPING CARS

are run daily with Overland Emigrant Trains.

No additional charge for Berths in Third-class Cars.

Tickets sold, Sleeping-car Berths secured, and other information given upon application at the Company's offices, where passengers calling in person can secure choice of routes, etc.

Railroad Lands

FOR SALE ON REASONABLE TERMS.

Apply to, or address,

W. H. MILLS, JEROME MADDEN,
Land Agent, Land Agent,
C. P. R. R. SAN FRANCISCO, S. P. R. R. SAN FRANCISCO

A. S. TOWNE, T. H. GOODMAN,
General Manager, Gen. Pass. & Tkt. Agt.
SAN FRANCISCO, CAL.

REWARD OF \$10-\$50 TO EVERY PERSON sending us valuable information of school vacancies and needs. No trouble or expense. Send stamp for circulars to CHICAGO SCHOOL AGENCY, 185 South Clark Street, CHICAGO, ILL. N. B. We want all kinds of Teachers for Schools and Families.

SHIPPING.

OCEANIC STEAMSHIP COMPANY.

Carrying the United States, Hawaiian and Colonial mails for

HONOLULU, AUCKLAND, and SYDNEY

WITHOUT CHANGE.

The splendid new 3,000-ton Steamship



MARIPOSA

Will leave the Company's wharf, corner Steuart and Folsom streets,

SATURDAY, JUNE 5th at 2 P. M.
Or immediately on arrival of the English mails.

FOR HONOLULU AND RETURN

The Steamer

AUSTRALIA—Tuesday June 15th

For freight or passage apply at office, 327 Market st

JOHN D. SPRECKELS & BROS.,
General Agents.

OCCIDENTAL & ORIENTAL STEAMSHIP COMPANY.

for JAPAN and CHINA.

Steamers leave Wharf corner First and Brannan sts., at 2 o'clock, P. M., for

YOKOHAMA and HONGKONG.

TOUCHING AT HONOLULU,

And Connecting at Yokohama with steamers for Shanghai.

1886.

STEAMER. FROM SAN FRANCISCO.
OCEANIC.....TUESDAY, JUNE 22d

EXCURSION TICKETS to Yokohama and return at reduced rates.

Cabin plans on exhibition and Passage Tickets for sale at C. F. R. Company's General Offices, Room 74, corner Fourth and Townsend streets.

For freight apply to GEO. H. RICE, Freight Agent, at the Pacific Mail Steamship Company's Wharf, or at No. 202 Market street, Union Block.

T. H. GOODMAN Gen. Passenger Agent.
LELAND STANFORD President.

ESBERG, BACHMAN & CO.

IMPORTERS OF

Chewing, Smoking & Leaf Tobacco.

HAVANA CIGARS AND LEAF.

225, 227 & 229 California St. and 123, 124 & 126 Battery Street.

SAN FRANCISCO.

And Nos. 7 & 9 NORTH FRONT ST. PORTLAND.

FREDK WM. LUTTGEN,

COMMISSION MERCHANT,

(P. O. BOX 829) 51 Warren St., New York.

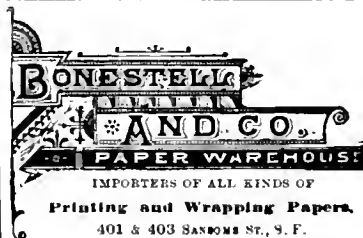
Solicits consignments of California Produce, and orders for the purchase of Merchandise, generally. Eastern Agent for Eclipse Champagne.

JAMES HUNTER.

GAUGER OF WINES AND SPIRITS.

(Established 1851.)

OFFICE—323 FRONT STREET,
San Francisco.



THE SAN FRANCISCO MERCHANT.

THE ONLY VITICULTURAL PAPER IN THE STATE.

Devoted to Viticulture, Olive Culture, and other Productions, Manufactures and Commerce of the Pacific Coast.

VOL. XVI, NO. 5.

SAN FRANCISCO, JUNE 18, 1886.

PRICE 15 CENTS

AMERICAN GRAPE VINES IN SOUTHERN FRANCE.

[Report of Consul Mason.]

It is about fifteen years since it became apparent that the vineyards of a large portion of France were doomed to destruction by phylloxera, and that, except in a few locations where the nature of the surface and water supply might enable vine growers to submerge their lands, the only really effective remedy lay in the replacement of the perishing vines with strong, hardy roots from the United States. This experiment has been tedious, complicated and costly, but it has now reached a stage which promises substantial success. It is proposed in this report to give, in reply to many inquiries from American horticulturists, a succinct record of the experience of wine growers in this consular district with imported vines, to state what has been proven, what remains still to be decided, and what varieties of American grapes have proven most successful under the new conditions of soil, climate and culture which prevail in Southern France.

At the close of 1884 fifty-three departments, containing 6,214,572 acres of vineyards, had been invaded by the phylloxera. Of this whole area 2,511,540 acres had been wholly or partially destroyed. Among these stricken departments were included prominently those of Hérault, Ardèche, Bouches-du-Rhône, Var, Aude, Pyrénées-Orientales, Gard and Vaucluse, which constitute the consular district of Marseilles. It is to these departments, particularly Hérault, Gard, Var, Aude and Vaucluse, which are largely devoted to wine culture, that this inquiry will especially relate. In these five departments there were growing at the close of 1884 100,692 acres of American vines; 83,615 acres had been treated by the sulphide of carbon process, which has so generally failed as to be now practically abandoned, and 58,237 acres had been saved, at great expense, by immersion with water, which, when thoroughly applied, drowns and destroys the parasite.

Even before the invasion of the phylloxera, which began in various detached localities from 1864 to 1870, numerous experiments had been made with grape roots of different kinds, imported from the United States as resistant to the oidium, a disease which seriously threatened the French vineyards thirty years ago, but which was hap-

pily cured and eradicated by treatment with sulphur. By reason of the appearance of phylloxera within a few years after this introduction of American vines, many European writers have inferred that the pestilent insect was introduced here by those hardy importations from the New World, but this theory has been abundantly disproven by the highest authorities, upon evidence that is impregnable. The phylloxera appeared simultaneously in districts where no American vine had ever been planted, and others, where many of these imported vines had been growing for years, were spared long after the first invasion.

It was soon noticed that in vineyards thus attacked the native vines perished, while American varieties, notably the Clinton and Concord, growing in adjacent rows, retained their ordinary health and vigor. Investigation showed that the roots of these imported vines, derived from the wild, luxuriant species indigenous to our forests, have a different quality and texture from those of European varieties. This difference became most obvious in presence of the phylloxera. When stung or bitten by the insect, the European root rots and perishes as from a deadly poison, while the hardier American racine shows simply knots or blotches on its surface, which in most cases do not seriously affect the health of the plant. If the phylloxera attacks its leaves, small excrescences appear on their under surfaces, but the injury is usually not serious. It is not meant by this that all American vines have successfully resisted the pest. On the contrary, some varieties, after a few years of trial, have weakened and become nearly or quite as vulnerable to phylloxera as the native roots which they had replaced. Others have proved successful resisters, but years were required to demonstrate this.

The carbon remedy having substantially failed, the American vines were promptly recognized as the one available resource, and the French wine growers, demoralized by ruinous losses, entered upon the experiment with a headlong enthusiasm which for a time overlooked many obstacles and difficulties which afterward became serious. Hundred of thousands of roots and cuttings were imported from the United States and planted indiscriminately wherever they were needed. Instead of experimenting on a small scale with different

varieties to ascertain their fitness for new conditions of soil and climate, many farmers planted whole vineyards with the Clinton, the Concord, the Taylor and Norton's Virginia, all of which showed for a time great promise, but eventually, in certain locations, languished, became weak, uncertain growers and had to be abandoned.

It was thus discovered, to the great cost and disappointment of many cultivators, that the American vines are, almost without exception, far more capricious and exacting in their requirements than the standard European varieties, such as the Aramon, the Chasselas and the Clairette. The climate of Southern France is totally different from that of any part of the United States, except certain portions of California. Instead of the rank, virgin soil to which our native varieties are accustomed, they find here fields worn and fatigued by centuries of culture. These natural difficulties were aggravated by the short, close pruning to which the French farmers were accustomed, and which they continued to practice upon their American vines, to the great injury of the plants and detriment to their crop. They required several years of varying success and failure to outgrow this error and to learn that for every variety of soil, exposure and degree of moisture there are one or two American vines better adapted than all others, and that each vine grower must determine for himself, by actual experiment, which is best suited to his purposes.

THE GENESIS OF AMERICAN GRADES.

There are, according to the best authorities, not less than seventy-two more or less distinct species of grape vine indigenous to North America. Seventeen of these have been subjected to culture, and have each produced several varieties more or less valuable. The varieties which have proved most effective, either for direct production of wine in this country or as stocks for grafting with European grapes, belong mainly to five species, and are as follows:

Species.—The Fox grape (*Vitis labrusca*), native of Pennsylvania and Florida. Varieties: Isabella, Concord, Diana, York's Madeira, Emmanuel, Hartford Prolific.

Species.—The Summer grape (*Vitis vulpina*), native of Virginia, the Carolinas and Gulf States. Varieties: Jacques, Herbe-mont, Alvey, Norton's Virginia, Cynthiana, Le-noir, Hermann.

Species.—The Winter grape (*Vitis cordifolia*), native of Pennsylvania and Florida. Varieties: Clinton, Vialla, Othello, Oporto, Franklin.

Species.—Round-leaved vine (*Vitis rotundifolia*), native of Virginia, the Carolinas and Florida. Varieties: Scuppernong, Flowers, Thomas, Tenderpulp, Wish, Richmond.

Species.—Riverside grape (*Vitis riparia*), native of the Ohio Valley. Varieties: R. Glabra, Tometeux, and several others.

All of these varieties may now be said to have been thoroughly tested within the territory of this district, and the result in each case has been reported at the meetings of the agricultural societies of the Gard, Hérault and Bouches-du-Rhône. It is to the records of these associations and to the published reports of Mr. Felix Sahut, Vice-President of the society of Hérault, confirmed by observation and inquiry of the leading wine growers in the several departments, that the facts included in this report have been derived.

The value of each of the foregoing varieties depends upon three essential requirements: 1st.—Does the vine permanently resist phylloxera? 2nd.—Does it produce directly a good wine? Or 3rd, is it serviceable as a stock for grafting with other varieties?

Of the direct producers, in other words, the American vines which yield marketable wines without grafting with other varieties, the most important are as follows:

1. The Clinton, which, as already indicated, was one of the earliest varieties to be essayed in the vineyards of Southern France, for the reason that it was one of the most widely grown and most successful grapes in the United States. In a few instances, where the soil is exceptionally favorable, the Clinton has achieved excellent success both as a direct producer and grafting stock, but the vine on the whole has proved too fastidious, and in many cases, after growing vigorously three or four years, it has degenerated and ceased to bear, except a few small clusters. When such vines have been grafted they have succeeded in producing as high as 540 to 600 gallons of wine per acre, which is considered a satisfactory result. But the Clinton is no longer a favorite in this region.

2. The Concord also began with great promise as a direct producer. Although its wine had the peculiar "foxy" flavor so

disagreeable to the French taste, it was adopted here by reason of its fine, luxuriant growth and its high reputation in the United States. Like the Clinton, it finally degenerated except in a few specially favored localities, and is now only mentioned by experts as a *souvenir*.

By far the most important and successful direct producer, of American origin, is—

3. The Jacquez, which is known in Texas and Alabama as the Lenoir and Black Spanish, and in the Northern States under the name of Ohio. The Jacquez is a hybrid, which is now thought to have been originally introduced into the United States from Spain by a Spaniard named Jacquez, who cultivated it in the neighborhood of Natchez. It seems to have been subject in our country to mildew and black canes, and for that reason has not been extensively grown there. Brought back to the hot, dry climate of Southern France, it has shown extraordinary qualities, both as a grafting stock and a direct wine producer. It is perhaps due to its remote European origin that the Jacquez is more vulnerable than most other American varieties to the phylloxera, and it requires, therefore, careful attention. But its exceeding vigor, its long searching roots, its vigorous growth of stem and foliage, the quantity and excellence of its product, combine to give it a front rank, both as a direct producer and as a stock for grafting. Some complaint has of late been heard that the wine of the Jacquez deteriorates after some years of its growth in white, marly soils, but even there this defect can be overcome by judicious grafting.

4. The Herbemont ranks probably next after the Jacquez as a rapid, thrifty grower, but it bears but sparingly, and has therefore been grafted with the Carignan, and in this condition produces an excellent wine, although its clusters ripen tardily and require a long, bright autumn to reach their full maturity. It is, moreover, somewhat "difficile" in its choice of soils, and although it has attained an excellent reputation in the west of France, cultivators in the Mediterranean region concede that it has, on the whole, hardly fulfilled expectations. It is therefore placed in the list of vines which only develop their best qualities under exceptionally favorable conditions of soil and exposure.

5. The Cunningham or Long grape, a native of Georgia and a remarkably luxuriant grower, shows a great adaptability to thin, dry soils, and has been largely planted along the arid hillsides of the Gard and Bouches-du-Rhône. But it bears but sparingly, its wine is weak in alcohol, and it has therefore been generally abandoned as a direct producer, and utilized as a grafting stock for the Chasselas, the Clairette and the Aramon.

6. The Isabella was largely planted ten or fifteen years ago, but it proved almost as vulnerable to phylloxera as the native vines, and as its wine evinced a rank, "foxy" flavor, its culture was soon abandoned. The same is true of the Hartford Prolific, the name of which has ceased to figure in the reports and discussions of vine growers.

7. The Lenoir, which belongs to the same species as the Jacquez, and has been often, in our country, confounded with that variety, has proven one of the best American vines for direct production. The vine resembles very closely that of the Jacquez, but its wine is deeper in color, and when grafted it bears larger clusters though relatively fewer in number.

8. The Othello is a hybrid, produced by fecundating the blossoms of the Canada

Clinton with the pollen of the Black Hamburg. It is known in England, Germany and the Netherlands under the name of Frankenthal. The Othello adapts itself well to most soils in this region, grows sturdily, bears freely and produces a wine of excellent quality, the foxy flavor, so noticeable in northern vintages, having been almost eradicated by cultivation in this warm, dry climate. Its hybrid origin has caused some apprehension lest it prove, in the end, subject to the phylloxera, but although in many cases the parasites have attacked its roots in great numbers, it has resisted the attack and continued to flourish.

Of the several excellent grafting varieties, 9. York's Madeira seems to hold the highest rank. It is of the same family as the Isabella, and is a native of Pennsylvania. It has long been known in Europe, but has a poor reputation in America by reason of its liability to shed its leaves prematurely and on account of the tardy, imperfect ripening of its fruit. These defects have disappeared under the warm, dry climate of France, where it resists the phylloxera, holds its foliage until the coming of frost, and ripens its fruit perfectly in ordinarily favorable seasons. It grows well in a great variety of soils and resists drought best of all American vines. As a direct producer it bears too sparingly, and its wine has too much of the wild, rank flavor peculiar to many American varieties, but when grafted with the Aramon or Chasselas it attains during its fourth or fifth year a remarkable vigor, which seems to increase rather than diminish with age.

There is one of the few American vines which seems to have the desired degree of staying power and to promise long and vigorous life.

10. Next in order of merit as a grafting stock comes Taylor's Prolific, known also as the Bullitt grape in the United States. Its origin is traced to the eastern slopes of the Alleghany Mountains, south of the latitude of Pennsylvania. It has all the qualities of an excellent grafting stock, and the plantations of this variety in the departments of Gard and Hérault, grafted with the Chasselas and Aramon, are among the finest in France.

It is of course impossible within the limits of a report like this to give a separate paragraph to each of the numerous varieties of vines which are now undergoing culture and observation in this country, but among the most important and promising of those not hitherto specified are: The Alvey, Marion, Black July, Elvira, Delaware, Noah, Senasque, Triumph, Croton, Black Defiance, Salem, Telegraph, Harwood, Lady Washington, Duchess and Union Village.

There is the large group of varieties belonging to the Riparia species, which have been more recently introduced and are now undergoing the tests of experience. The Riparias have thus far resisted the phylloxera far better in this region than in the north or west of France; and in certain districts of Hérault, where the soil is of a white, marly nature, they are rated above even the Jacquez as grafting stocks.

But the Riparias seem subject to a disease peculiar to that group, which in some cases has caused the vines to suddenly perish after a few years of vigorous growth. Pending the further study of this malady and until the numerous varieties of this family have been more fully tested, the best authorities recommend only two, the Glabe and Fomenteux.

Years must elapse before all these disputed points are settled and culture of American grapes in France reduced to an exact system. The problem embraces not only the choice of varieties best adapted to each special soil and position, but all the diverse methods of pruning and grafting, and, above all, the union of stocks and grafts adapted to each other by natural affinities. Each step of progress thus far made has only served to show the complicated nature of the task, but the enterprise and intelligence of agricultural France are enlisted in the cause, and unless the American vines, should, with the lapse of years, become subject to the same pest which has devastated the native growths, a complete restoration of the French vineyards is only a question of time.

FRANK H. MASON, Consul.

UNITED STATES CONSULATE,
Marseilles, February 3, 1886.

THE HONOLULU WINE TARIFF.

As we mentioned in our last issue, a bill has been introduced in the Hawaiian Legislature for the purpose of reducing the tariff on wines, discriminating in favor of the California product. The duty at present stands thus:

Below 18 per cent. Alcoholic Strength.	
Per Dozen, Quarts.....	40 cents.
" " Pints.....	20 "
" " Gallon in Bulk.....	15 "
Above 18 and below 30 per cent. Alcoholic Strength.	
Per Gallon.....	\$2 00

The proposed change is to alter the alcoholic strength to 21 per cent, thus allowing all wines under 21 per cent. of alcohol, to be imported at a duty of 40 cents per dozen for reputed quarts; 20 cents a dozen for reputed pints and 15 cents a gallon in bulk. This will, if passed, allow the introduction of all California wines at the lower rate of duty, whereas formerly the fortified wines were subject to a duty of \$2.00 per gallon. In this connection, it is interesting to note the very large increase there has been recently in the shipments of California wines to Honolulu.

GROWTH OF THE WINE TRADE. (Los Angeles Herald.)

The steady and uniform growth of the wine trade of Los Angeles is most gratifying. The pure wines of Southern California are now sought for by the druggists in all parts of the nation, and what is still more gratifying the parties purchasing them are well satisfied with the purity and quality of the article and they purchase it over and over again. In this way the pure wines of the Pacific Coast are spreading all over the country among a population of 56,000,000 people, who inhabit a territory that will soon contain 100,000,000 population. It is this feature that cheers and encourages the wine-growers of California and induces them to push on the business of wine making, till the products of our vineyards shall take the place of foreign drugged liquors, and the apple brandy and other fiery distilled liquors of the eastern part of the country.

The Riverside Press and Horticulturist has taken another step forward. A year ago the weekly issue of the paper was changed for a tri-weekly and now it appears daily. It is a good, valuable and reliable paper and we trust that its support will be sufficient to ensure a continuance of the enterprise displayed by the proprietor.

THE MARKET FOR VITICULTURAL PRODUCTS.

Discussion at the Meeting of the State Viticultural Society, held in March.

Mr. Wetmore.—In reference to the enlargement of the market for our viticultural products, the most important topic relates to the influence that might be exercised by retailers, such as hotel-men and restaurants, if they would only consent to treat our products in their sales as they do those of others, that is, selling it at the same rate of profit. If wine was only sold at the same rate as beer, we would have a large market, and if wine-drinking was treated the same as beer, and placed on the same level as tea or coffee-drinking, we would have no trouble to dispose of our products. It should be our aim, at this session, to do something to accomplish that result. I asked the question of Dr. Bernard as to what was being done in Livermore, and I felt proud at his information because that is the district where I have my vineyard. We gave the hotels there to understand that unless we were treated in the same manner that they treated coffee and tea drinkers we would not patronize them. I have advocated that, and argued with them for years, and as you hear from Dr. Bernard to night, two out of three hotels are supplying it on their tables, and the third is very likely to follow. I am perfectly ashamed of the St. Helena people allowing the hotels there to continue their business as they do, when they have the power to compel them to do otherwise. A class of producers that will submit to be humbugged in that way by the very men who are living off them, have no right to complain of the want of markets in other parts of the world. If a little energy was enthused into the wine-growers they could conquer this State in a short time. I will give an instance. I dined with a number of gentlemen and my wife to-day at a restaurant where years ago I used to attend with friends connected with the press. It then occurred to me that it was about time they were giving wine at the same rate of profit as they got from tea and coffee. I told the proprietor of the restaurant I was going to leave because I was not treated as well as other people were, he was exceedingly excited when I made the remark, for said he, "I knew that I was the best treated, that I had the best in the house, and if there was anything to be had, we had it." He wanted to know what I was complaining about, I pointed to the table where he was charging ten cents for tea, and I said, "what do you charge me upstairs for a pint of claret?" "Why, fifty cents, of course, the regular price." I said "What do you pay for it." Oh, said he, "that was good wine, high priced wine, extra wine, old wine," and the old story that you hear everywhere. Now, I said, "you know me well enough to know that I know that you are lying, you didn't pay but about 40 or 50 cents a gallon for it, and if you did, you are a fool, and don't know your business, for it was ordinary wine anyhow; you might pay 60 or 70 cents for a better wine, but I will guarantee if you give me 40 cents I will duplicate it for you." He said there was breakage in his bottles, and loss in corks, I asked him if there was not any breakage in his cups and saucers. He came down to the statement that if he made a great deal of profit in wine everybody was doing the same thing. I said you will not do it long, for I said, I will go myself and take my friends to where I can get wine, I am not going to pay more profit for my wine than a man pays

for his tea. I want my wine for ten cents, and if you give a pint of wine for ten cents that is a dollar a gallon, and is a good profit. Finally he said, "you get the wine and I will supply it to you." I said, "No, you will get the wine," but he wished me to get it, and so I went to Mr. Kohler's and sent up five gallons of wine, and he put it up in bottles and sent it to our room—there were John McConbe and several others with myself who used to take our meals there. It was not long before I found that it was only served in that particular room, the rest of the house did not get wine except a 50 cents a bottle, as soon as I found out that, I was determined that the people should get the benefit of the wine at ten cents, so I changed my habit and took my meals down stairs, and called for my wine and gave them to understand that they could get the wine at ten cents. You now find on the bill of this house that a pint of claret is sold for ten cents and they sell hundreds of bottles of it. If every one of the producers will do some kind of work like that we will conquer the country everywhere, don't go around the country and submit to anything that the hotel keepers may impose, complain as I do. When I was up in Sonoma I complained, for I had to pay twice as much for claret there as I paid in Washington. When I go to Napa I always growl, the idea of being forced to pay the price of a dinner for five cents worth of wine; part of this trouble is with the wine-growers themselves. I will relate another instance. I asked Colonel Jackson while he was editor of the *Post* about his mineral waters, and I asked him if his mineral spring would turn out water enough to put it on the table as they generally do in Europe with wine. I asked him how cheap it could be furnished. He told me it was about five cents a bottle. I said then you cannot do that, for it is as much as wine. If you can get good, cheap mineral water to mix with the wine, it will be extensively used. He said, "Five cents a bottle for wine? Why, I pay fifty cents." I said, "You don't do anything of the kind." He said, "Yes I do; six dollars for twelve gallons." I said, "You had better go and learn the trade." The wine maker of Napa that charges six dollars for such wine as they can supply does not know any more about his business than the man that bought it. If you find a man that is paying a large price for his wine in bottle, show him how to buy it in wood and bottle it for himself. It is for your interest. If you do not do this, you will never have the custom of wine drinking popular, so that the fault is really on both sides. The fact that we cannot buy our own wines in our own hotels at a fair price is against us. When I went East, I found many who had visited California who said, "Why, people there don't drink wine, we never find any wine there, it is all French wine." So it is on the label. If you order California wine in any of these hotels, it is the most miserable trash there is. They are using the other wine under false labels. Our reforms should be at home; if we cannot do it here, we cannot make progress in our cause. We have some influence of patronage and custom, and we ought to make it felt, use your influence as I have done in two or three cases. In Napa they used to take a dollar a bottle for their claret. I abused them in the paper and the next year when I went there they had it reduced to fifty cents. I told them that was nothing. I was not going to pay fifty cents for wine, but when they bring it down to tea and coffee I will

take it. In this fight you must not accept any concessions less than that. The wine drinker must be treated on the same terms as the tea and coffee drinker. When they tell you they are doing you a favor in giving you a bottle of wine at 25 cents they are doing nothing of the kind. You can go into a restaurant in this town and buy a meal for 25 cents, and out in the country you can do the same thing, and that one part of the meal should cost the price of the whole meal is an outrage. I believe that the best work that we can accomplish is such as I have outlined with our hotels and restaurants.

Mr. Husmann.—I wish to say on the same subject that I have found a place recently open at which you are supplied a glass of wine for five cents. The proprietor has told me that since he has done this he has sold about twenty dollars worth of wine a day. This is down near the water front, and wine drinking has become so common that even the sailors will come there and take their glass of wine. This place is on Clay street. This is the line to be followed. As soon as wine becomes as cheap as beer or tea or coffee, then the people will drink it.

The President.—When they come to that point, the question of intemperance will be solved, for there won't be any drunkenness with those who drink wine.

Mr. Husmann.—The proprietor told me that this was doing so well that he was going to open a place on Market Street within a few days.

Mr. Haraszthy.—I will state my experience during the past week. A friend of mine asked me if I had a good claret. I told him that I had claret according to prices. He wanted to know the price I was serving a certain restaurant, and I told him. He said, "will you give me the same wine?" I told him that he could have that or some other better according to age or quality. He did come and order a cask bottled, and I bottled for him some three hundred. He receives a great many people from Europe. He is a merchant here and makes trips annually to make purchases. He is an Irishman, and a very fine Irishman too, and he sees a great many Irish people who are engaged in spinning and weaving. He has had about a dozen out within the last three months, and they all want to know where he gets the wine. Among them was one who thought that he could work up some trade among his friends and make a business of it. He said that in Belfast the French wines are detestable and at a great price. He wanted to know the price of it, and he took as a sample a dozen casks. Now, came the question, for ten days I have been trying to find out at what rate of freight I could send from here to London or Belfast. He did not want it to go to Liverpool, because of re-shipment. I thought it would be about ten cents a gallon, which the gentleman thought was very dear. Among other information, when enquiring about the freight, we were informed that in small lots it would cost about 33 cents a gallon, sent by mail steamship to Southampton or Liverpool. This was something extraordinary, but in case there was a carload made up, it would go for something like 11 cents on the Sunset Route. I had an interview with Mr. Stanford, and considerable correspondence with the heads of the departments. They wanted to know something of the present and future outlook, and I gave them papers which they could study over. They wanted to know

what freight we wanted to pay. They were for getting everything out of it they could. They told me that they had to make a concession, or were paying something to the Trans-continental French steamer that ran from Havre, in the shape of ballast, and that they would rather take this at a moderate rate than make changes. At any rate, their rate to New Orleans would be 14 cents a gallon, and they wanted to know how 14 cents would suit me. I said that would not do, for they would have to carry it across the sea three thousand miles for nothing. They said never mind bothering about that. I then wrote a letter in which I said that wines were selling for a certain price, that the class under which our wines would sell in London, was about thirty or thirty-five cents delivered. I thought it might realize 35, but I did not think it would really fetch more than 30, new wine sent as soon as it could be shipped. I started in to show what the cost would be, the first was the bringing of it from the country here, the next cost would be the casks, then there would be interest on the money, then commission and insurance. I deducted these costs and I said, "this is what the vine grower gets. Now, what can you carry it for? The freight has got to come out of that." It made the item very low, about 7 or 8 cents a gallon. Back came an offer, saying that they would take a carload to Liverpool, Havre and London, I thing it was for 10½ or 11 cents clear through, in order to lead it to encourage this trade. That is a very marked advance. I wanted to get them to take it at such a figure for less than a carload, but I could not do so, putting in from 1 to 5 or 10 casks, 10 casks would be a very respectable order from one person, although I have seen 20 ordered at once. It would be a very respectable order from London, although I have seen larger orders, but I have never been able to make up a carload. I wanted to get a rate on from 1 to 3 packages. I wanted to send a carload to New Orleans, and take out the local shipments and forward at those rates, but they would not do so. It is a little inconsistent, for instance, if I had to ship a load to London, I could send for 11 cents, but if some accident happened to occur in London, and I had to stop the wine in New Orleans, I would have been charged 14 cents for it. One of the greatest troubles that San Francisco wine merchants have, is the discrimination to points at a distance. At this moment everything goes lovely, we can send wine all over the country for 5 cents a gallon, and we can go east for very little. We all expect to go east if we can only collect our bills in time. There is another inconsistency in this trade which may be interesting to you to know, the inside of it, that is the unanimity which existed between the wine merchants of San Francisco to obtain higher prices. For sweet wines, this was to last for six months subject to reduction. After going on for a time, they were not making any money which was quite natural. They agreed to raise the price fifty per cent and that went out in the newspapers. The real price was represented to be about 60 cents, subject to reduction in six months time. Everything was lovely on that line for a while. Then came objections. The first thing I knew freights went from 14 to 5 cents, and our firm had an order of three carloads of mixed wine at 55 cents a gallon. We telegraphed that we could not make any change, and that our price was 60 cents and nothing less. These were all good parties and had gone into the business. The reply

then came that we were to fill it at 55 cents or not fill it at all. Then I heard that somebody outside of the firm was selling at 52½ cents, and I went to the firm and wanted to know if that was so, and they said yes, that the document had not been signed, there had been some objection to it, and they had been bound up by the provisions of the contract and could not send it. I thought here I was, having refused this order, and after thinking it all over, I telegraphed back that it would be 57½ cents. I filled that order at 57½ cents, and sweet wines at 60 cents. Some of those orders dropped through. One made me the cool offer of 52½ cents. If the freight goes down five cents they want a drop of ten cents on the price. I am told that wine is being sold at 50 cents a gallon, package included. That will show the difference in San Francisco dealers. The Government have five cents tax, it will cost seven or eight cents interest, five per cent commission and 2½ cents risk, and that without saying anything about rejection. Selling subject to rejection would virtually bring the price down from 57½ cents to 52½ cents. Then you have clerk hire. Taking all these things into consideration you will see how impossible it is to sell good wine at those figures. Then as soon as the freight went down the price went down. The question of freight is an important one to us, and is well worthy our consideration.

Mr. Wetmore.—We have now low transportation but if we do not have it in six months what are we going to do about it? What would you recommend?

Mr. Haraszthy.—I would answer Mr. Wetmore by saying that we must do as he did with the hotel keepers, we must complain. Pursue the same course as he did with the restaurant. Let everyone complain, both through magazines and newspapers. The Transportation Companies go with the population. Here, they are very careful to fix the rate of transportation by the price that an article will sell for. We are powerless unless we bring this matter before them vigorously. A man cannot settle far from the railroad, or it will take more than the produce will bring to transport it; besides, he wants something more than to live in that kind of way. The way the Transportation Companies are acting is preventing people from coming here, for they cannot make a living. While east, I met a number of persons who had got hold of these emigration papers and were misled as to the large profits which they could make. I met men from Ohio, Illinois and some points further east. I met one man who had been sent out by a party on a prospecting tour. He said that there were a number of them who wanted to settle on this coast. I said, "where have you been and what are you going to do?" He said he had been among other places to Oregon, and there he had found all facilities for growing crops. Said he, "You can grow everything, but you can't get it to market." I said, "what are you going to do?" He said, "stay at home, and tell my friends to stay at home. It will cost them twelve to fifteen hundred dollars for my trip, but they will be satisfied and very glad that they have not come out."

These are the experiences which you meet on the cars. It may be that the railroad companies are making so much money that they don't want to make any more, and would therefore rather prevent emigration by making it impossible to send their produce to market. I believe that the five cents a gallon they are now charging for wine from here to New York, is a price at which they are making money, and that the nine, ten or twelve cents above that is actual profit.

SUMMER PRUNING.

(The Monticello Farmer and Grape Grower.)

Ma. Editor: One of your subscribers has made a question about the usefulness of summer pruning for the grape-vines. In answer, I should say first, that the expression "Summer Pruning," does not convey to the mind exactly the two operations that are made to the vine during the growing season. These operations would be better named Suckering and Pinching or Pruning. The first, suckering, is of the utmost importance and cannot be omitted without damage or loss; the other is only optional. The opinions of different viticulturists do not agree on its usefulness, some recommend it, many disapprove of it and consider it damageable.

What I call suckering, consists in removing all the shoots growing on the old wood, near the ground, and good many useless shoots, growing on the new wood. The operation must be done during the present month, as soon as the danger of spring frost is over, and before the blooming of the vine. No knife is necessary, all the shoots are removed easily with the hand. It is necessary to go over the vineyard at least twice for removing all the suckers, and in the Clinton, sometimes a third operation is necessary. It is obvious to point out the necessity of such an operation; everybody can see that it concentrates in the fruiting canes all the strength of the vine and gives a better chance for a good blooming and a good setting of the fruit.

The second operation, when it is done, is described as follows by Dr. J. Guyot: "The fruiting shoots should be pinched off, by aid of the thumb, above the sixth leaf; the shoots of the branch for wood should not be pinched. Before going further on that operation, let me translate from the French paper *La vigne Americaine*, an incident on the subject. In the number of April 1885, Mr. J. E. Planchon, writes: I read in the *Gardner's Chronicle*, of London, number of March 7th, 1885, the following: M. M. Casocia and Savastano have recently made analysis of wines produced respectively by vines pruned and vines unpruned. Of grapevines of nine distinct varieties, planted in a surface of one hectare, (2½ acres) one half has been pruned, the other half left unpruned. By the analysis, the must produced by the last vines (unpruned) has been found the richest in sugar, and the less rich in acid. It would be good to repeat that experiment on vines trained by the extensive and other systems. My friend, Professor Cornu, finding the observations reported on the experiment of M. M. Casocia and Savastano, entirely paradoxical and opposed to positively admitted notions, wrote to the "*Gardner's Chronicle*," number of March 14th, 1885, and stated that in the South of France, where the wine is sold generally for its alcoholic strength, the short pruning used in this section has never lessened the alcoholic degree of the wine. In support of this assertion of Mr. Cornu, and in view of knowing the precise opinion of the best viticulturists of the Department of Hérault, I have referred the question to the Agricultural Society of same Department, of which are members, M. M. Henri Mares, Gaston Bazille, L. Violla, G. Foex, Frédéric Cazalis, François and Félix Sabatier, Jules Lechard, Louis Des Hours and many other practical and learned men. The unanimous answer has been what could be foreseen. I recapitulate it in a few propositions:

1st. As a rule, larger is the number of bunches of grapes on a vine, smaller is the quantity of sugar and consequently of alcohol. The proof of such a fact is striking with the grapevines intended to be dug up the next year, and which are pruned very long, or not at all, in view to have the largest crop possible. The numerous bunches produced by such process hardly ripen and often remain entirely green.

2d. Grape-vines trained very high and pruned very long, the trails of great production, give always a wine less alcoholic than the same varieties short-pruned with the bunches submitted to the alcoholic re-education of the soil. Mr. François Sabatier, in his vineyard near Florence, has got the best results, quality also quantity, by the substitution of short-pruning to the long-pruning system.

3d. One of the reasons which has prevented the adoption of the Guyot system of pruning in the Mediterranean region, is that the grapes produced on one cane long-pruned have given a wine inferior by its alcoholic strength to wine made from spurs short-pruned.

In M. Henri Mares vineyard, the Pineau itself, trained by the method, has produced a wine with two per cent less of alcohol than the wine from spur-pruned vines.

This been told, I cannot take charge of making the facts observed by M. M. Casocia and Savastano, agree with those we have observed here. I beg only to point out some of the reasons which, in our region, have brought the general use of short-pruning as the more rational and more practical for the production of wine. I said some of the reasons, because in this short letter I cannot enumerate all the elements of a question so complex, in which the soil, climate, variety of grape are motives which may change the conclusions, but shall leave intact the principle that short-pruning and radiation of the warmed soil are the conditions favorable for the richness of grapes in sugar and finally in alcohol.

You see, Mr. Editor, how Mr. Planchon has been started by the idea of leaving the vines unpruned.

Now comes in the May number of *La Vigne Americaine*, a card of J. E. Planchon, as follows:

"Because we understood literally a short note of the *Gardner's Chronicle*, my learned friend Mr. Cornu and myself have deemed it necessary to refute the assertions attributed wrongfully to M. M. Savastano and Casocia.

The English paper, usually so well informed, has confused this time two things perfectly distinct, viz: the pruning, properly called, or winter pruning, with the pinching or summer pruning of the green shoots. I am pleased to do, in haste, justice to Mr. Savastano, in publishing the following letter, by which the question is put down and solved in its true way:

SUPERIOR SCHOOL OF AGRICULTURE OF PORTICI, near Naples, Portici, May 5th, 1885.)

Dear and Most Honored Master:—I have been very much surprised in reading your article on the effects of pruning, etc. You are perfectly right in taking as paradoxical the experiments attributed to us. It is not our fault, but *Gardner's Chronicle*, who has wrongfully presented our studies and made us tell what we never meant to say. Here is the reason why. We have published on the subject three articles. The first in the *Stazioni Sperimentali agricole italiane* in 1882. The second in the *Annuario* of our school 1883, one-third in the No. 1 of 1884

of the *Journal d'Agriculture pratique*. The last resumes the two first with some comments.

We have made our experiments on the summer-pruning, and properly on that practice called the pinching of the vine; and in view of avoiding all misunderstanding, we have clearly explained that by that practice, we meant the cutting when green of the fructiferous canes, two or three leaves above the last bunch of grapes. This seems to me an entirely different thing to the one attributed to us in the *Gardner's Chronicle*. I give our results:

1st. With our strong and robust varieties, when pinching is done, the percentage of glucose in the must is always less than when there is no pinching done.

2d. The glucose is in direct ratio with the number of leaves of the cane to which the grape belongs, the acidity in inverse ratio.

3d. The suckers decrease in the fructiferous canes the percentage of glucose, and increase the percentage of acidity.

During the second year, we have been able to experiment on one hectare (2½ acres) of vines. The results have confirmed that the percentage glucose is smaller in the vines pinched off and the acidity larger. We have found also that more robust was the vine, larger was the difference. I beg you also, most honored Master, to see if you find right in my article on the pinching of the vine, my idea on such an important matter. I think that both practices can be made to agree, viz: that pinching is good in the north and dangerous in the south. I agree entirely with your opinion, shared by many gallant French viticulturists, on the long and short pruning. We are perfectly in agreement on the subject, and we have here near our school many examples which confirm your practice. I hope you will do justice to us of the wrong occasioned by the *Gardner's Chronicle*.

If you think proper, you can publish the present.

Yours, &c.,

DR. LOUIS SAVASTANO,

Professor of Arboriculture at the Superior School of Agriculture.

P. S. I send you the article of the *Journal d'Agriculture*, and also an article of Mr. Giraud, who says: Experiments made on a large scale show that exaggerated pinching produces barrenness in the South; I have had many times the proof of it. Then follows another note of Mr. Planchon, from the *Œuvres Agricoles* of Cazalis-Allut, Montpellier. "Everybody knows that the grapes most close to the soil, ripen first. Wishing to experiment on that subject, I have managed a vine in such a way that one half of the fruit was 25 centimeters (9 inches) above the soil, and the other half, 1 meter (3 feet) above the soil. The must of the first was 10 degrees by Baume aerometer, the must of the second 9½. The experiment has been made many times, results have never changed. You see by the density of these musts, that an elevation of 75 centimeters (27 inches) has reduced the Saccharine matter of one twentieth, and it is easy to understand how poor must be the wine produced by vines which in some countries are left climbing on high trees."

Now, Mr. Editor, I have nothing more to say about Summer Pruning. After the authorities above mentioned, your readers may judge for themselves. I conclude in telling again to be careful in removing all the suckers before the blooming season,

and after too, if any more grow. I will add also that during the present month, it is time to make the second plowing which consists in throwing back to the vine the ground removed by the first plowing. Plow only after the danger of Spring frost is over; the vine freezes easier when the ground has been recently moved. Do not plow during the blooming time, it will injure the fecundation. The vine does not want any disturbance during the delicate operation of fecundation.

G. ARNAUD,
Supt. Monticello Wine Co.,
Charlottesville, Va.

P. S. In looking over each sheet of the vine for the operation of removing the suckers, the vineyardist must also look for the injurious insects. It is a good opportunity to destroy them.

CRITICISM ON CALIFORNIA WINES.

EDITOR MERCHANT:—Some seventeen months ago a collection of twelve samples of young wines, duplicates of which were presented to and tasted at the State Convention in December, 1884, at San Francisco, was sent by the State Viticultural Commission to Baron von Babo, Klosterneuburg. A second collection was sent to Professor Dr. Joseph Bersch, Vienna, and a third to Dr. Adolf Blankenhorn, Karlsruhe. From the first named two gentlemen received letters here, which, with reference to the California samples, contain the following passages:

Baron Babo says: "The wines sent are of the greatest interest, and they have frequently been tasted by many people, who expressed their astonishment at the excellency and the variety of them. Doubtless California will be a grand wine producing State—it the phylloxera did not exist. But let people persevere and make sure by grafting on resistant stock."

The expression of satisfaction with the quality and variety of our products, of which the Baron saw only the few samples sent him, is certainly encouraging and confirmatory of our hopes and views. At the principal oenological institute of the Empire of Austria there are men who understand this subject, and we may trust that no mere compliment was intended, as we proved to have jumped a high leap above the Mission types of wines that formerly gave California a bad name, which yet has to be washed off in our own country by familiarizing people with the improved looks of our present product. In a postscript Baron von Babo says that the specified judgment on the samples sent him will be forwarded in a few days.

Dr. Bersch was absent from Vienna last summer and autumn and writes that he delays examining the 1884 samples until next fall, in order to have a number of competent people tasting with him, and such people cannot well be gathered in Vienna in summer when every one, who can, leaves the city. The samples, which Dr. Bersch has kept all the time in his study, have remained perfectly bright. He is a man who has little time beside that dedicated to his oenological work, and with a vast amount of retarded work owing to his travels last year, disposes in the right way of the tasting of our samples later and he wishes to do so in company of men whose opinions will be unimpeachable.

From Dr. Blankenhorn we shall likewise hear eventually the authoritative opinion of men who can judge our wines. I shall take occasion of sending a small collection of wines from the samples of the late National Convention here to the three gentlemen named and to Professor Dr. Roessler, on the part of the California State Grape Growers and Wine Makers Association.

F. FOSCHOFF,
Washington, D. C., May 31, 1886.

GRAPE GROWERS AND WINE MAKERS.

A regular meeting of the Grape Growers and Wine Makers' Association of California was held at the rooms of the State Viticultural Commission on 1st inst.

The President, H. W. McIntyre, was in the Chair. The minutes of the last meeting were read and approved. The by-laws were read and acted upon *seriatim*, and Article V was amended by adding to it: "The Directors shall collect and publish to the members of the Association all statistical information of interest to them, including a directory of vine growers and wine makers in this State, as complete as can be made, acreage planted in vines, ages and varieties of vines planted, prospects of crops and range and prospects of prices."

Article XI was amended so as to read as follows: "The regular meeting of this Association shall be held at the city of San Francisco, on the first Tuesday of January and March and the third Tuesday of June and August at 11 o'clock A. M., at such places as the Board of Directors may designate."

Article XII was amended by adding to it: "The Secretary shall also send notices of meetings of the Association to the members by postal cards."

A new Article was adopted as follows:

ARTICLE XIV.—*Amendment of the By-laws.*—These By-laws may be amended at any regular meeting of the Association by a vote of two-thirds of the members present, provided that the proposed amendment shall have been offered in writing at a previous regular meeting, the proposed amendment to be sent to each member with a notice of the meeting.

On motion of Mr. Haraszthy, it was ordered that the Secretary cause 500 copies of the By-laws, with the names and addresses of the members, to be printed, and that he send a copy to each member.

A communication from the Hop Growers' Association of Mendocino county, asking the Association to co-operate with them in their opposition to the "Boycott" recently attempted in the State, and enclosing resolutions on that subject and the kindred subject of Chinese immigration was read. On motion of John T. Doyle, it was

Resolved, That the Secretary address a communication to the Hop Growers' Association of Mendocino county, stating that we entirely agree with them in their sentiments expressed in their resolutions transmitted to us, and that whenever concerted action in opposition to unlawful dictation as to the management of private business, whether enforced by violence or by boycotting, is judged necessary we will second them.

THE BOARD OF DIRECTORS.

Pursuant to a call of the President and notices by the Secretary the Board met at the rooms of the State Viticultural Commission at 9 A. M. on June 1st.

Present, Messrs. H. W. McIntyre, Chas. E. Shillaber, D. C. Feeley and M. Keatinge. The minutes of the last meeting were read and approved.

Mr. E. C. Priber was elected to fill the vacancy in the Board caused by the increase of the number of Directors by the adoption of the by-laws, and took his seat as a member of the Board.

The Deutscher Verein of Anaheim was enrolled as a member of the Association.

Captain H. W. McIntyre, President of the Association, was elected President of

the Board of Directors. The action of the Treasurer in paying \$250 on account of the expenses of Mr. Pohndorf at Washington was ratified and approved. After discussion it was

Resolved, That the Treasurer be, and is hereby instructed to make payments, out of the moneys subscribed and paid into the special fund of the Association, for the purposes for which they are intended, upon the order of the Secretary, approved by the President.

Two bills for freight on exhibits sent to the National Convention at Washington were ordered paid.

On motion the Board adjourned to meet on the 6th day of July next at 11 o'clock A. M. at the same place, and each member of the Board was requested to be prepared by that time with a plan for gathering statistics as required by Article V of the by-laws, and the Secretary was directed to invite Mr. F. W. Morse to be present at the meeting.

THE WORK IN WASHINGTON.

EDITOR MERCHANT.—Your correspondent here will have kept you posted about the proceedings of our National Viticultural Convention. Thus there is no need of giving you a repetition of details.

As to the result of the gathering, it was a great success. There are many most intelligent grape-growers in the East. The tendency of all of them is implicit striving after purity of the product of the vineyard. The work of Mr. Wetmore in uniting all the viticulturists of the United States into one National Association is recognized by all of them as a most important one. His election as president of the Association was spontaneous and unanimous, and after the proceedings were closed, the opinion of those of the Eastern members I had occasion to speak with, was that no one among them could be more desirable, because they knew of no one who possesses with zeal for our cause the thorough knowledge of all our industry in all its details as well as our needs. The Commissioner of Agriculture has been most sympathetic for our cause. His address, which was the first delivered after the opening of the proceedings of the Convention, will have been under the eyes of your readers and confirm his views, which are ours. He has been with us every day and his department has officially assisted us. The whole collection of samples was turned over to the department where a thorough examination and analysis of them will ensue. Our cause is stamped now a truly national one. Commissioner Coleman presented the grape-growers of all States which concurred at the Convention to President Cleveland.

My occupations have been so tiring and absorbing all my time since the above was written that I could not continue it, having also had to go with Mr. Wetmore to New York in the meanwhile. As to the chief business in hand that of the bills before Congress and Senate, affecting our interests, the truly hard and intelligent work of Mr. Wetmore may bear early fruit, if the great advance produced by his energetic and untiring activity may not be checked by side issues, such, for instance, as matters of policy of one or the other faction, having properly no bearing on the principle involved, but obstructing the proper course. People attending to the quiet daily routine of their occupation there cannot imagine what amount of brain-racking and active work at all hours, often up to midnight, is needed to attend, in the sense of a man of Mr. Wet-

more's stamp knows to do it, to the matters that so greatly interest all viticulturists. Few are able to appreciate Mr. Wetmore's activity or cannot do so, because the difficulties in its course are not easy to understand. I have ceased to be surprised, having by this time become accustomed to what seems natural and in safest keeping with the man whose whole thoughts are bent on the safety of straight wine-growing and making.

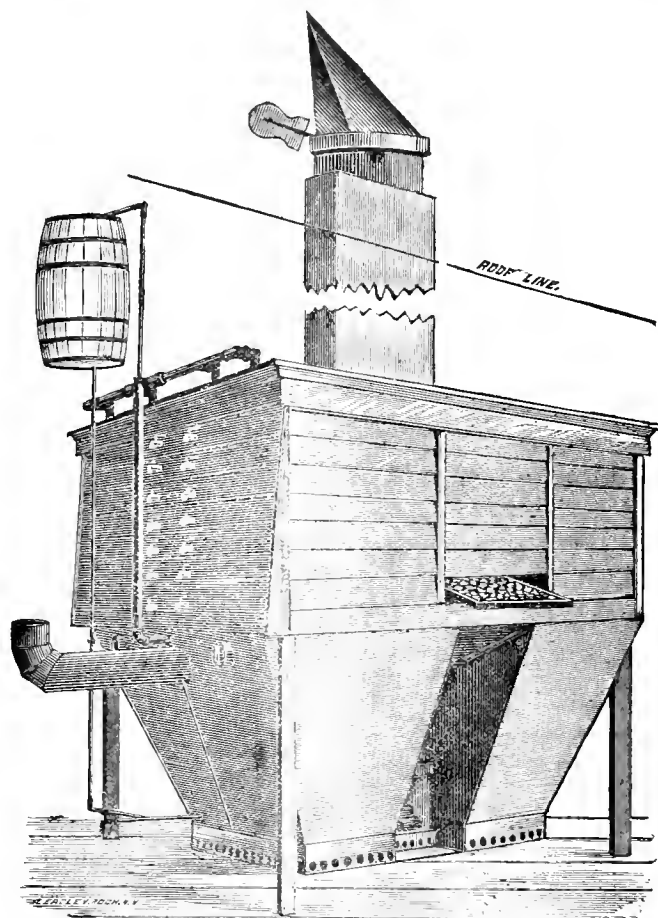
Last night Mr. Wetmore addressed some forty physicians, members of the Medical Association of the D. C. on the subject relating to the spurious wine bill. The elucidation of the scientific side of the question seemed easy to the speaker, for he has personally investigated facts in Europe, had the verdict of high medical authorities there and has imbibed thoroughly what the whole technical writings of wine-growing and con-

suming countries say on the subject. His clear explanation captivated the audience, who have deputed a committee of their society, Drs. Garrett, Buckley and Smith, names that sound well here, to assist in the legislative part, as well as to consider the question of purity of our product an essential one in the interest of public hygiene. This assistance is an important one, for certainly as Mr. Wetmore expressed it, the faculty thus far has been too modest in their influence in matters so greatly affecting the family, the consumers generally, and the producer too. The vote of thanks moved by the chairman of the Medical Committee on Legislation to Mr. Wetmore was unanimously rendered and with hearty applause. F. PDFF.

Washington, D. C., May 29th, 1886.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

ACME STEAM FRUIT DRYER.



We show in this issue the "Acme Evaporator" made by the Steam Heat Evaporator Co. of Charlotte, Mich., which is being introduced on this coast by Messrs. Batchelor & Wylie of 37 Market street, which we think is worthy of examination by those interested in fruit drying, it being operated by an entirely different process from any of the others now in use, steam heat being the means used instead of hot air. In this machine we find a system of flat chambers, about an inch in depth, placed one above the other, which are perfectly steam tight, these chambers being far enough apart to admit of two trays of fruit being placed between each pair. The fruit is subject to an equal degree of heat from above and below, the moisture being carried away through the draft chimney, without subjecting the trays in the upper compartments to the dampening effect of the moisture arising from the lower trays, as it is driven out by the heat. The liability of scorching the fruit is necessarily overcome by the evenness of the heat, and by the equal heating of all parts of the machine, saving a great deal of expense, care and attention, it being unnecessary to change the trays from one part of the machine to another in order to save one portion from scorching, while the other remains unscured.

It is also claimed that the effect of steam heat is to produce a finer quality of fruit than from almost any other method, owing to the even temperature and low degree of heat used, sufficient only to force the moisture out of the article dried, being all that is necessary, provided the moisture is immediately carried away.

This process, in our opinion, should recommend itself to those who use evaporators in curing their grapes for raisins, as it would seem to be especially adapted to that work, owing to the evenness of the heat applied. This machine, though new, is certainly worthy of attention, and if, upon trial, it fulfills the claims of the manufacturers, it must be, as its name implies, "The Acme" for fruit evaporating.—*Rural Press.*



ISSUED FORTY-SEVEN TIMES ON FRIDAY MORNING BY

E. C. HUGHES & Co., - - Proprietors.

CHARLES R. BUCKLAND, - - Editor.

Office, 511 Sansome street. Postoffice Box, 2366.

TERMS—PAYABLE IN ADVANCE.

One copy one year, in advance, \$3 00

One copy six months, in advance, 1 75

Including city delivery, United States, or Canadian Postage.

Entered at the Postoffice as second class matter

AGENTS.

ANAHEIM MAX NEBELUNG
 CLOVERDALE, Sonoma Co. J. A. CARRIE
 DIXON, Solano Co. A. K. SPODY
 DUNCAN'S MILLS, Sonoma Co. F. SLOAN
 FRESNO H. C. WARNER
 GEYSERVILLE, Sonoma Co. D. LEPP
 HEALDSBURG, Sonoma Co. A. BALZELL
 LIVERMORE, Alameda Co. GEO. BECK
 MAXWELL, Colusa Co. M. NATHAN
 SANTA ANA R. F. CHITTON
 SAN JOSE, Santa Clara Co. E. E. WRIGHT
 SANTA ROSA C. A. LINDSAY
 STOCKTON W. H. ROBINSON
 WINDSOR, Sonoma Co. LINDSAY & WELCH
 WOODLAND, Yuba Co. E. E. WRIGHT
 HONOLULU J. M. OAT, Jr. & Co.

FRIDAY JUNE 18, 1886

Recognition

Our friends in the Fresno Viticultural and Horticultural Association recognize the value of a journal like the MERCHANT guarding and advancing their interests, and give effect to their good wishes in a very practical way, as will be seen by the following resolution:

Official.

FRESNO, CAL., April 5, 1884.

Proprietor S. F. MERCHANT. — Dear Sir, Below is a copy of the minutes of the last meeting of the Fresno Viticultural and Horticultural Society that is of interest to yourself.

Resolved—That this Association recognize the SAN FRANCISCO MERCHANT as one of the best organs of the Viticultural and Horticultural interests in the State, an exponent of their views and able advocate of their interests, and, moreover, as a paper which has taken more than ordinary interest in the prosperity of Fresno county. We agree to give the publisher our liberal support while it at journal pursues the course for which it has hitherto been distinguished. Moreover, we suggest that manufacturers and dealers in agricultural implements and other merchandise who wish to call our attention to their goods, and other viticulturists in maintaining the SAN FRANCISCO MERCHANT on a sound footing, by giving it a large share of their advertising patronage.

Be it further resolved that the Fresno Viticultural and Horticultural Society tender its thanks to the SAN FRANCISCO MERCHANT for past favors.

C. F. RIGGS, SECRETARY.

SULPHURING.

Some stupid recommendations having been published to the effect that sulphur should be applied to vines when the leaves are wet, we reproduce the following from the Second Annual Report of the Chief Executive Viticultural officer. The system here recommended, is that which has been beneficially practised for years by our oldest and most experienced grape growers:

Oidium and mildew are developed by favorable conditions of atmospheric moisture and warmth. Sulphurous acid fumes from the combustion of sulphur under the heat of the sun, gently and gradually diffused about the vines, are practically beneficial. The sulphur should be applied in warm, dry weather in the form of powder; the triturated or ground sulphur is the best.

Do not apply when the leaves are wet.

Repeat applications which have been rendered useless by rain without delay, as soon as the weather is warm and dry. First application when blooming commences; second, when the berries are well formed, before they are larger than peas; third, later, generally in July.

COLLECTING STATISTICS.

The members of the State Viticultural Society, at their last meeting, discussed the idea of collecting viticultural statistics. That such statistics will be useful and interesting there can be no doubt, but there is considerable doubt as to the amount of success that will be derived in the undertaking. We do not desire by any means to throw cold water upon the idea; on the contrary, we hope to see it form a definite and workable shape, and will assist in the matter as much as possible. We have some little idea of the difficulties consequent upon such an undertaking from our individual efforts to prepare a directory of the grape growers of California, some eighteen months ago. We succeeded in getting together nearly 3,000 names, some of which were wrongly in the list while many were omitted. In some sections we received cordial assistance and encouragement from individual viticulturists, but in many more instances we did not even receive a single reply to our enquiries for information. And from these very places, where information was withheld or we were discouraged from our work, came the first and only complaints as to its faultiness and short comings. The effort even was not appreciated, but it was gladly seized upon as a subject of ridicule and contumely. We recollect with considerable pleasure the advice of an editor, in a county that considers itself as one of the leading viticultural counties from which we had not received the slightest assistance. His advice was to withdraw all the copies from circulation and burn them. This was encouraging to say the least.

However, we wish the Society much better success. There are many members and they are scattered tolerably well throughout the State. Each individual should be able to collect accurate information in his own immediate neighborhood, and to induce friends a few miles off to do the same. We have still in our possession some corrections that were sent us after the publication of our list, with the area planted to vines in a few localities. These are at the service of the Society if they are likely to be of any use in forming a ground to work upon. The individual members of the Committee, who have this work in hand, are to report their ideas and plans of procedure at the next meeting. It will be remembered that, at the last Annual State Convention, Mr. Morse gave the results of his experience in this direction. He had not only sent out circulars and blanks, but he had also traveled from one end of the State to the other on behalf of the Commission, seeking statistics and often finding none. Good work has been done by the Livermore Herald, the St. Helena Star and the Concord Sun, but we think these three papers are the exception that prove the rule of indifference on the part of the others. The general idea seems to be, when viticulturists are asked for information, that they are afraid to give it for fear the assessors may get hold of it. This is a most absurd and wrongly conceived idea. Mr. Morse proved by his work, where it was most perfectly and thoroughly done, that the assessors figures were always in excess of the facts. Consequently, if the grape growers would only give the facts, then the figures for their taxes would really be less than they have been paying for years past. For instance, the reports of the assessors on the acreage in vines for Los Angeles County, is 25,000, and for Contra Costa County, 3,000 acres. The actual figures are 15,000 and 2,000

acres respectively, so that the grape growers in those two counties are paying taxes on 10,000 and 1,000 acres of vines which they do not possess and which are not planted. The fallacy of the "assessor argument," on the part of grape growers is therefore apparent, and should be clearly explained by the Society when endeavoring to obtain the information for their returns.

JACK FROST FROZEN OUT.

The MERCHANT has previously referred to the frost alarm introduced here by Mr. J. H. Drummond of Glen Ellen. A wire connected with a thermometer in the lowest part of his vineyard, most subject to frosts, gave an alarm in his house when the thermometer fell to a certain degree. Mr. Thomas S. Glaister, of Sonoma, has conceived an idea which bids fair to out-frost the original freezer. It is simply the same idea and principle on a more extended scale. Mr. Glaister's idea is that if the wire can signal the approach of frost to a man's house, and so start the alarm, it can be made to do more and better work. In the frost season every vineyardist has his fires ready set, anticipating the approach of the common enemy. Mr. Glaister's plan is to have an electric wire connecting from the main battery at the thermometer with each separate bonfire, so that when the temperature goes down to 33 degrees the electric spark will be carried to every heap and so start the fires all around the vineyard, while the owner, without rousing up all hands, getting the coffee ready, and any delay in starting the individual fires, can stand complacently at his window inside the house, watch the fires starting and retire to roost again with the satisfaction of knowing that his vineyard will be well protected before the enemy's arrival.

The experiment has been tried on a small scale at Sonoma on three or four piles of firing placed fifteen feet apart. There it was entirely successful. The points at the wires are held in position by a piece of cord fastened on each side of the heap to be burned. The fire of course burns the cord and the wire springs out to one side thus saving the points for future use. The point of the wire connects with a small piece of gun cotton enclosed in paper that is saturated with kerosene or some other inflammable material which will ensure the fire igniting. This should be covered by an old tin, of which there are always plenty to be found on any vineyard, to protect the points, where the electric spark connects with the gun cotton, from becoming damp and useless through the effects of fog or dew. The estimated cost of the whole appliance, including wire, battery, thermometer and arranging the same is from \$100 to \$150 for a vineyard of 200 acres. A larger battery would answer the purpose for several adjoining vineyards, thus reducing the individual expense. This figure means, of course, an economical method of working the wire without needless outlay for new or fancy posts. We hope sincerely that the experiments, tried by Mr. Glaister, will be conducted on a large scale. If they prove successful it will certainly be of the greatest benefit and importance to all vineyardists.

The *Vigneron* is the name of a new monthly journal published in Melbourne in the interests of the viticulturists and wine trade of Australia. It is filled with interesting and valuable matter, to which we shall probably frequently have occasion to refer.

THE FIRST GRAPES.

It seems somewhat early to speak of grapes in San Francisco on June 9th. Yet this has been an early season, and there is no reason why grapes should not be precocious as well as other agricultural products. On the date mentioned, June 9th, we had the pleasure of seeing and tasting some excellent grapes of the Muscat variety. They were perfectly ripe and very large in size, in fact, much larger than the grapes that are generally found in the San Francisco market in the middle of the season. The lot, which consisted of a box containing some twelve pounds of fruit, was exhibited "On Change," and naturally attracted considerable attention. It was variously estimated that similar grapes would bring, in the local market, at this time of year, from 75 cts. to \$1.50 per pound. They were cut from 2½ year old vines, and were grown out of doors at Honolulu, at the residence of Colonel Spreckels. They were shipped to Mr. John D. Spreckels by the Australia, and arrived here in excellent condition after a voyage of 7½ days, although not packed on ice. If our friends on the Islands can ship such fruit here regularly, in advance of our crop, they will find a ready market for them at good paying prices.

The quantity of fruit the vines is to be allowed to bear depends upon the vigor and verity of the vine. To determine it, the vine-grower must consider the pruning of the preceding year and result obtained. He will see, from the number and size of the canes, whether the vine has increased or diminished in vigor; the fruit stem hanging on the canes will bear witness of its fertility. The amount will be augmented if the vine has acquired vigor, without yielding sufficient fruit. It will be diminished if, the production having been abundant, the vegetation is poor.

T. D. McKay, the ever energetic agent of the Burlington Route, was to the front again on the arrival of the Mararoa from the Colonies with a neat little pamphlet giving the names of all the through passengers, by the two former steamers, whom he had assisted in their journey East. Their name was legion as McKay has a splendid connection in Australia, and deservedly so, for he is the most obliging and "live" man in his business on this Coast.

We admire the *Chronicle* for some things, especially its accuracy. For instance, last week, it announced in its shipping columns the arrival of the British steamer Australia, Captain Brough, from Honolulu. The steamer Australia has been under the Hawaiian flag for some months and Captain Brough left for England about March, the steamer now being in command of Captain Webber, formerly of the Zealandia.

The four State Viticultural Commissioners, whose terms of office recently expired, have been re-appointed for a further term of four years. They are J. De Barth Shorl of San Gabriel; R. B. Blowers of Woodland; Charles Krug of St. Helena and Charles A. Wetmore of Livermore.

Several copies of an interesting work on Orange Culture in New Zealand have been received by the Resident Agent for that Colony, by the last mail, and will be placed in the public libraries of San Francisco.

OUR AUSTRALIAN TRADE.

Another session of Congress is almost ended and nothing has yet been done toward subsidizing the mail service connection between the Colonies and the United States. For years past the only assistance accorded to the steamers carrying the mails has been by the Governments of New Zealand and New South Wales, the former bearing the greater share of the contribution. We cannot be surprised if the Colonies should decline to continue the service, after the expiration of the present contract unless they receive some substantial support from this country. The Colonies have many and excellent competing steamship companies transporting their mails and passengers by the Suez and the Cape route. To enable us to retain a share of the colonial trade, we must be in a position to offer every inducement to travelers and shippers. This can only be done by subsidies, and certainly the United States Government should bear its share of the expense in return for the large benefits that we receive.

Each steamer leaving here for the Colonies carries a full and valuable freight of American products and manufactures. There is hardly a line of trade that is not represented in these shipments. The Custom House returns show that the connection has been much more valuable to us than to the colonies. The last half dozen steamers arriving here have brought many more passengers than the outgoing steamers have taken away. All these passengers spend a considerable amount of money in sight-seeing, traveling and purchasing. This is a decided gain to us besides the regular trade shipments which have almost doubled within the past three years, and which show an enormous balance of trade in our favor. Our exports consist mainly of agricultural implements, carts and carriages, drugs and medicines, iron and steel manufactures, kerosine, leather and its manufactures, fish, tobacco, lumber, sewing machines, household furniture, canned goods, fruit, toys and notions. We give the figures of our Australian trade for the past three years, thus:

Year.	Imports.	Exports.	Total Trade.
1883.	\$2,088,000	\$6,730,000.	\$8,818,000
1884.	\$4,160,330.	\$10,331,771.	\$14,492,101.
1885.	\$2,439,795.	\$11,455,014.	\$13,894,809.

Balance of Trade in favor of the United States.

1883. \$1,642,000.
1884 \$6,171,446.
1885. \$9,015,219.

This is a remarkable exhibit and one that cannot be equalled by any showing of our trade with any other country in the world. Analyzing the figures we find that while in 1885 we imported from the Colonies very little more than in 1883, yet our exports to the Colonies had almost doubled. The total volume of trade in 1885 was less than in 1884 but this was due to a decrease of almost \$2,000,000 in our imports, while during the same period the exports increased by over \$1,000,000. The balance of trade showing is most interesting. In two years, from 1883 to 1885, the excess of exports over imports had almost doubled, jumping from \$4,642,000 to \$9,015,219. All kinds of assistance has been, time and time again, promised to the Colonial Governments for the maintenance of the Australian Mail Service connection, but hitherto these promises have not been kept. With the showing of trade that we have set forth, and its commercial value to the United States, it is high time that the promises of Congress were redeemed and that some adequate compensation be paid for the continuance and extension of such an important feature in our foreign trade relationship.

THE HAWAIIAN TREATY.

As the MERCHANT intimated long ago there is no danger of notice being given, during the present session of Congress, to abrogate the existing treaty with the Hawaiian Kingdom. This will be the case in spite of a very determined opposition on the part of a small and narrow-minded clique who wish to make the interests of the majority subservient to their own—the few. A daily contemporary, which ought to study the welfare and interests of San Francisco, has been the bitterest opponent of this Treaty which has done more to establish foreign trade on the Pacific Coast than any other legislative enactment of Congress. The main objection, that of monopoly, always formerly raised by the *Chronicle*, no longer exists so that it has been compelled to resort to other fallacious reasonings. But its real motive is so well known that its futile efforts at abrogation have become a by-word and a laughing-stock in our business community.

It will be remembered that, some weeks ago, our contemporary published what purported to be the draft of a new treaty proposed between the United States and the Hawaiian Governments. This document, as published, bore the signatures of the late Secretary of State and the Hawaiian Minister Plenipotentiary at Washington. Its main clause referred to a proposed concession of certain rights in Pearl Harbor to be granted to the United States. When the paper containing this supposed draft of a treaty arrived at Honolulu, the Minister of Foreign Affairs there pronounced it a forgery, and said that no such proposed treaty had ever been drafted or signed, with the Pearl Harbor clause, by the Hawaiian representative at Washington. He further announced that no such concession would ever be permitted by the Hawaiian Government. When a paper has to resort to such misrepresentations its cause must be a very weak one indeed. The determined stand of Senator Stanford, Hon. Charles N. Felton and the rest of the Pacific Coast delegation to Congress has been heartily approved here, and is as it should have been. Besides our own representatives there are many other warm friends of the Treaty in Congress who are unprejudiced and determined that fair play shall be accorded. A determined fight has been made for abrogation, hence the greater the victory.

Since the above was written we notice that the *Chronicle* has published a sort of semi-contradiction as to the correctness of its former statements in regard to the Pearl River Treaty.

Correspondence from Abroad.

C. A. Wetmore Esq. Chief Executive Viticultural Officer, San Francisco, Dear Sir.—I notice in your Second Annual Report to the Board of State Viticultural Commissioners of California dated 1884, on page 10 you mention that you are trying to kill quickly vines, the roots of which are infested by the phylloxera.

Some few years ago I made an attempt to kill some sweet briars which had become troublesome in one part of the garden, which are hard to eradicate. I recollected from my studies of vegetable physiology that plants when their roots are cut or otherwise injured, will take up substances, poisonous substances, in relations which their power of selection, when they are sound would lead the roots to reject, I said to myself that if I were to cut off with a

clean cut at the surface of the ground the sweet-briar stems at a time when the circulation of sap (sap movements) was going on vigorously, the plant would be likely to take into circulation fluids that were presented to it at the point where the stem had just been cut off, provided these substances were not of a nature or strong enough to injure the tissues when they came in contact with them and in that way to impede or stop the sap movements. With this in view, I made (puddled), a sort of cup of clay around the top to the exposed stem, in such a way that the cup would hold and present to the top of the newly cut stem, the liquid I wanted it to take in. The fluid I chose was a weak solution of sulphuric acid, sufficiently weak as not to corrode or injure in any way, the tissues of the stem when it was brought into contact with it. This seemed to answer and killed the sweet briars.

I send you a copy of Owen's Garden Receipts; on page 134 you will see a number of fluids which are recommended for killing weeds on garden walks. I made my solution of sulphuric acid, about half as strong as the solution of oil of vitrol that is recommended there for killing weeds on garden walks.

Through the kindness and good offices of a friend, I have received copies of the reports and other works, that have been issued by yourself, and so highly do I value them that I am having them all carefully bound. It is the knowledge in fact that I have derived from them that has caused me to buy some land for the purpose of planting a vineyard, which I shall start to do during the next few months. It is my intention to adopt the Chiantre system; a system which as far as I know, no one in Australia has yet attempted. Another system of training that I purpose to try is that shown in figure 6, of the illustrations of the above mentioned second annual report.

There is a table grape which is much cultivated in this colony, and which has proved itself to be of value on account of its lateness, its prolific yield, and because it stands shipping fairly well. I do not think anyone knows the real name (European) of this grape, but it goes under the name of Baxter's late Sherry. If you would care to become possessed of it, and care to try it, I shall be glad to forward you some cuttings. If I pack them in wax cloth, I can easily send them through the post.

Some seeds of the Arizona wild grape that my friend purchased for me last year at your office, failed entirely on account of the drought. I was away from home and could not give them personal attention. As I am likely to be at home altogether in the future, I shall ask my friend to try to get me some more of the seeds of it and of the Riparia, (the Californica, I can write for to a man who advertises in the MERCHANT) It is my intention to plant the vineyard on phylloxera proof stocks, the only questions as to the wisdom of doing so that appears to remain unsolved at present, is whether the grafted plants will be long-lived; grafted ones do not live long.

WILLIAM FARRER.
Cuppacumbalong Queanbeyan, New South Wales. May 7th, 1886.

Prune growers in California claim they can raise, cure and prepare prunes for market at five cents a pound and clear one hundred dollars an acre. Fruit growing only needs encouragement to become the great California industry instead of wheat.—*San Francisco Chronicle*.

Local Vineyards.

(Santa Cruz Courier-Item.)

The Vine Hill district is looking superb this spring and giving promise of an unequalled crop of grapes. There are some three hundred acres in vines in the district and the vine growers vie with each other in the matters of thorough and scientific cultivation and fine appearance of vineyards. Though the ample and continued rains of this spring will doubtless have a beneficial effect on the seasons crop, they have caused a great deal of extra work to the vineyardists—much more than the usual amount of plowing having been necessary to keep control over the weeds. Mr. J. N. Luff has adopted the plan of terracing the steepest portions of his ground, making the terrace wide enough for several furrows and setting the vines on the sterner slopes. This method renders cultivation much easier and more thorough. It is more expensive at the outset but pays well in the long run. Most of the vine-growers of this district are adopting the practice of trellising the vines to some extent. John W. Jarvis' method of doing this work is to set a post or "bar" into the earth at each vine, so that it shall project three feet above the ground. Six inches below the tops of these bars is fastened a strong wire and upon this the spurs or branches of the vine rest. Mr. Jarvis has some 20,000 yards of wire in his vineyard and finds numerous advantages in its use. The greatest is the free circulation through the vines of air and sunshine, both of which are so necessary to the health of the vine and the perfection of the fruit. The wire gives no lodgment for water or dampness, as a wooden trellis might, and hence is of great service in case of heavy fogs or early rains coming before the vintage.

An Editor's Dream.

The editor fell fast asleep after a time, and lo! he dreamed a dream. And it seemed to him that, having armed himself with certain papers and books, he turned his steps once more to heaven, and knocked at the gate.

"Hell! is that you again? What do you wish?" said Peter.

"Let those persons again come forth," replied the editor, and Peter made them pass through and stand outside.

They came as before, and uttered the same cries as before. "Why didn't you notice the big egg I sent you?" yelled the first.

"It was rotten," replied the editor.

"Why didn't you write up my soda fountain?" said the druggist.

"You had your tickets printed at another office," replied the local man.

"Why did you write about old Tomlinson's hens, and never speak of my new gate?" shouted a third.

Old Tomlinson paid for his advertising and you didn't. Here's the bill."

"Why did you spell my name wrong in the programme?" groaned the local talent.

"Take a look at the manuscript and see for yourself," replied the editor with a grim smile.

The rest of the company yelled out their complaints in unison, and the editor calmly sorted out a pile of bills for unpaid subscriptions, and presented each with one, and it was so that when they received them they all tore their hair and rushed violently down a steep place to the sea; and St. Peter, taking the editor by the hand, led him within the gate and said:—

"Come, friend; these chaps managed to slip through here in spite of us; but, thanks to the press, we know now what sort of fellows they are. Come in and stay; we need a few such men as you in here."

THE PHYLLOXERA-A NEW DOG-TRINE.

[Wynberg Times.]

We have been requested to give insertion to the following copy of letters addressed to the Premier and Colonial Secretary, to which a reply has been sent that the writer's services were not required. While we cannot endorse M. Mertz's theory that the presence of the phylloxera in the vine is due to spontaneity, there is much in the letter to commend itself to the attention of viticulturists. We must, at the same time, be permitted to give expression to a feeling of regret that Mr. Mertz's proposal met with such scant attention, and that in a country where, more than anywhere else skilled labor is required, the Government should refuse the services of any respectable man, who, if his representations are true, should be invaluable at the present time, without taking the trouble to ascertain the capabilities of the applicant:

(Copy.)

CAPE TOWN, JAN. 19, 1886.

To the Honorable Thomas Umpston, Prime Minister of the Cape Colony, Cape Town—HONORABLE SIR:—The phylloxera having made its appearance in South Africa, and having a knowledge of this disease and the means how to cure it, I most respectfully beg your attention to the following; the more as I feel myself in duty bound to publish it for the good of my adopted country.

It is the opinion of many experienced botanists and it is so proved by them that the phylloxera is not an imported insect, but really the result of neglect in the cultivation of vineyards. These most valuable plants cultivated in a good climate and in a fertile soil, do not want any manure. The manure coming from the stables is too warm for the vineyard, and forms on the plant a white stuff called in France Blanc de Champignon (mould), collecting itself at the deepest roots and forming the oidium. I am convinced, however, that for a meager or strong soil the manure re-faced in a state of humus can be useful, but for a clay soil the rubbish of buildings and ashes are preferable. The oidium is a wart growing on the plant, the damaging propensities are not noticed, this only taking place after drought followed up by soft moisture and very often occasioned by too much manure.

To drive away this disease, sulphur has been used as a remedy until the present time; but, unfortunately, this stuff is bad to the growing of every plant, and especially to the vine, because the vine is a very porous plant, as are all the floras of Asia. In fact, the sulphur bellows very often used by men unaccustomed to the work project the pulver too thick on the vine branches, the leaves and the grapes. The sulphur combined with the oidium form one with the diseased grape, and fills the pores of the grapes, so that the necessary exhalation is cut off, and it is the same with the leaves which can no longer breathe but with the greatest difficulty.

I must add also that the sulphur combined with the moisture in the air produces a hydride of sulphur which is a very energetic acid and disorganizes the vines and the fibres of the leaves and afterwards becomes a serious disease causing oftentimes the death of the plant. A vine in such condition cannot receive the air and light necessary to its development; on the contrary, the heat of the sun in expanding that sulphur, burns the breathing organs of the plant, and without any doubt a vine thus attacked cannot grow ripe grapes, but

only small and sickly ones. This fact, learned by experience, is not to be contradicted; by all laws of nature, as well as by the plant's organism the sulphur must be repulsed.

The oidium is nothing else than a disease developed by the Blanc de Champignon (mould), and this is generally occasioned by using too much over-heated manure. This mould sets itself in even the deepest roots, and everyone can convince himself by rooting up the plant. It is principally a too abundant manure that forms the mould or Blanc de Champignon, which poisons the quint-essence sap which afterwards, thus poisoned, circulates in the plant; this virus is absorbed by the highly porous vine trunk and aided by drought followed up by moisture makes the oidium, and this disease, neglected, helps the development of the phylloxera by the exhaustion and decomposition of the vineyard. The only remedy found until recently (sulphur) by saving a part of the crop, kills the vine. The oidium is treated only as a simple accident and not as a disease, and instead of taking this disease by the root nothing else has been done up to this time than to treat it externally as if no purifying internally was required.

The disease I speak of can be compared to every neglected external affection, of which contagious principles are inoculated into the blood. What occurs after an external treatment without a previous internal purification? A deposit is formed which aggravates the disease, and that is what is the disease of the vineyards; after having treated them several times with the sulphur to save the grapes, you end by killing the vine. In fact the venomous principles not being able to make an eruption on account of the sulphuring, it is evident that these corrupted matters put themselves somewhere; they reflow to the source, that is to say to the roots and in the heart of the plant, causing putrefaction and decomposition by which the germs of phylloxera develop themselves.

The phylloxera is not the disease, but the result of it, and there is only one remedy: that is the one which is fortifying the vine by getting rid of the oidium and killing the phylloxera and other ameplophage insects, but to come to that the poisoned vines must be treated, looked after and over-heated manure done away with, the vineyard not wanting more than natural soil.

I now propose, knowing that I possess the means to get the colony rid of this most inesting disease, and feeling that I am duty bound to save the principal industry of the colony, I beg you may see your way clear to give me an opportunity to inspect the diseased vineyards and to make my experiments on them, and am convinced that submitting part of the vineyard through a chemical process which I have tried with good success in France, I, in a short time, will make the diseased vines healthy and in good bearing condition; the expenses in the first instance will be borne by myself. Should, however, my services afterwards be required by the Government, and having given proof of my knowledge to save the vineyards, I then hope to get my reward. I have the honor to be, Honorable Sir, your most obedient servant, C. MERTZ.

**BUY THE
HOWE SCALE.**

D. N. & C. A. HAWLEY,
GENTS, San Francisco.

THE OLIVE FOR FOOD.

(Dr. J. P. Widney in Rural Californian.)

FAT as a food is essential in some form to the physical well-being of man, and nature seems to have wisely provided for each climatic zone, a supply of that especial form of fatty material best suited to it. The Esquimaux finds in the blubber of the walrus or the seal the strong animal fat, rich in hydro-carbons, which he instinctively craves, because of the system's need of a strong heat-producing diet to enable him to keep up bodily temperature, and thus do battle with the rigorous Arctic colds.

The animal life of the polar region is marked by the tendency to the abundant formation of fat. In the warmer regions of the world, on the contrary, animals possess less fat-producing and fat-storing power, and men lose their appetite for animal foods. Yet even in the tropics fat in some form is a necessity in the food of man. Corn and wine and oil were ever symbols of earthly well-being, not only in the promised land of the old Hebrews, but to all the races clustering about the shores of the Mediterranean. And it is the vegetable oils that have replaced the grosser animal fats of the more northern climates as being better adapted in their dietetic uses to the higher temperature.

The animal fats, if used to any great extent in the warmer climates, seem to develop diseases in the human organism. It took the English colony of India a century to find out that the strong meat diet of the north used in the climate of India, invariably produced a diseased liver and death. Now that they, learning by experience, are adopting the light vegetable diet of the natives, they endure the climate much better.

The oil which in southern latitudes, has most generally taken the place of the animal fats, is the oil of the olive. It is lighter and less heat-producing than the oils or fats of animal origin. It is used in cookery, is an ingredient in every salad, and in the shape of pickled fruit takes somewhat the place of meat upon the table. Its high nutritive value is shown by the fact that the laborers of the Riviera perform severest toil upon a diet chiefly of black bread and olives.

One who has never personally tested the olive as an article of food can hardly understand its value. The writer has frequently for days at a time in warm weather, almost lived upon bread and olives, feeling as well nourished as upon a meat diet.

The culture of the olive seems to be almost coeval with the races of the Orient. Under the shade of its fruit-laden branches, rested the old patriarchs in the old tent of Syria. It accompanied the Græco-Latin in his migration along the shores of the Mediterranean. It passed with the Roman arms to Gaul and Hispania, and crossing the ocean with the Conquistadores, adds its pale-green foliage to the verdure of every old mission orchard from Vera Cruz to Monterey.

Whenever we thus find a plant accompanying man for thousands of years in his migrations across oceans and continents, it is because of a positive utility or food value, which it is proved to possess for the human race.

Somewhat of the extent of that economic food value, as estimated by one nation, may be surmised from the fact that in Italy the number of olive trees under cultivation is 100,000,000, covering 1,000,000 acres.

It is a safe rule to follow, that the foods which a people have adopted after inhabit-

ing for generations any especial belt of climate, are the foods best suited to the requirements of the system in that climate; that back of it is the working of some general law.

If, then, for thousands of years the race dwelling within this climate belt, which the Anglo-Tenton is now for the first time in his race history making his home, have thus proven the economic food value of the olive, and its especial adaptability to the dietetic demands of the climate, he, if he would accommodate himself to his new climate surroundings, would do well to learn a lesson from their experience, and to test in his own dietary the olive. And indeed we can already see, in the rapidly multiplying olive orchards and the long rows of barreled olives at the grocers' indications that the lessons are not unheeded.

But what will be the physical effect upon this meat-eating Anglo-Tenton of the isothermal line of 50°, as he moves southward to take up his abode in the isothermal belt of 60°, and abandons the animal diet of his fathers for the olive of the Græco-Latin?

The Wine Bills.

The following dispatches were sent to Washington last week in support of the Wine bills now before Congress:

SAN FRANCISCO, JUNE 9, 1886.
Hon. Daniel Manning, Secretary of the Treasury, Washington, D. C.: In behalf of the people of this State and their greatest industry, I earnestly appeal to you and the entire administration to aid the passage of the Wine bills now before Congress. The proposed remedial legislation is absolutely necessary if this important interest is to be maintained.

GEORGE STONEMAN,
Governor of California.
Senators Stanford and Hearst and Members of Congress from the Pacific Coast, Washington, D. C.: I have telegraphed Secretary Manning requesting his offices in behalf of the Wine bills, upon the passage of which hangs the destiny of our industry.

GEORGE STONEMAN.
Hon. Daniel Manning, Secretary of the Treasury, Washington, D. C.: If the viticultural interests of America are to be maintained it is imperatively necessary that the bills now before Congress should become laws. We appeal to you on behalf of a great national industry to lend your influence for the passage of these bills.

STATE VITICULTURAL COMMISSION.
ARPAF HARASZTHY, President.

FOR SALE CHEAP.

A new 300 gallon STEAM STILL with all improvements; also a

GAR & SCOTT
25 HORSE POWER
Agricultural Engine.

But little used and warranted in good condition. *Apply to

SANDERS & CO.,
421 Mission Street, San Francisco

ARE YOU USING
WELLINGTON'S
IMPROVED Egg Food
For Poultry?
IF NOT, WHY NOT?
EVERY GROCER, DRUGGIST AND MERCHANT
SELLS THIS EGG FOOD.

J. LANDSBERGER, HENRY M. LANDSBERGER.

Landsberger & Son,
Commission
Merchants,
123 CALIFORNIA STREET;
SAN FRANCISCO.

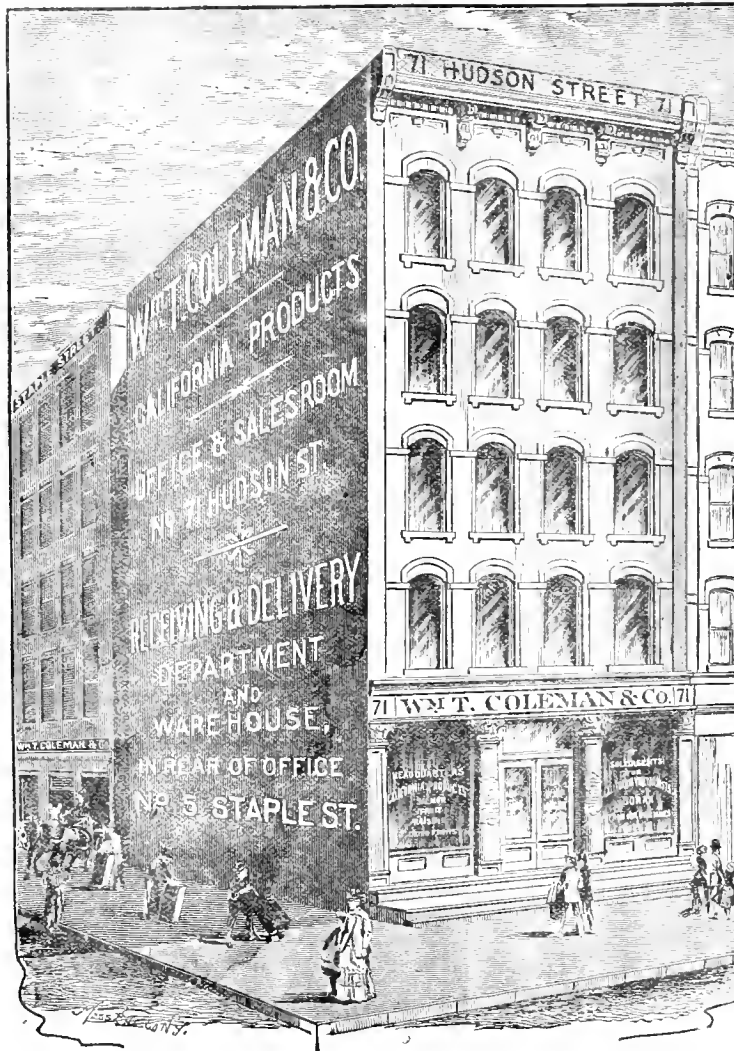
Agents for the Purchase and Sale of Viticultural Products and Vintners' Supplies.

CALIFORNIA WINES AND BRANDIES;

San Francisco,
121 Market Street.

Astoria, Oregon,
Flavel's Wharf.

Chicago, Ill.
91 Michigan Avenue.



New York,
71 Hudson Street.

London,
4 Bishopsgate St.,
within E. C.

Liverpool,
54 Drury Buildings.

WM. T. COLEMAN & CO.

71 HUDSON STREET,

NEW YORK CITY.

ALSO AGENTS FOR
ALCOHOL WINE AND SPIRITS.

Interesting Inquiries.

To the Secretary of the State Viticulture Commission, San Francisco.

SIR:—I have the honor by direction of the Executive Council of the "Australian Wine Association of Victoria," to forward you 6 copies of our new Association paper, the *Vigneron*, and we ask your acceptance of the same, and at the same time to request you to forward 20 copies of your Annual Report (for which we will pay) for our Association. At the same time I would ask as Secretary of the Association, that you accept a book of our Rules and endeavor to assist us with your great knowledge on Vigneron matters.

1st. Will you forward to me the original formation of your Society, and the present system of State aid and what is required to be done, as we think of obtaining from our Government some support?

2nd. If you have a library, a list of the books and papers, etc., you have in it, so that we may be able to pick such works for our library, which is in an embryo state.

3rd. As to whether you have Professors in your Agricultural Colleges who lecture on viticulture in all its branches, or if your Society sends professors or instructors to lead the vigneron what he should do.

I hope this will not give you too much trouble and you will accede to our requests, as we are young and poor as an Association, but strong in heart and enthusiasm on the subject. We have done good work and hope to do more. Trusting an early reply, I am,

Yours faithfully,

ROBT. WALCOLE,

Hon. Secretary.

The English walnut is said to be the most profitable of all nut-bearing trees. When in full bearing they will yield about 300 pounds of nuts to the tree. In England the nuts sell on an average at about eight cents per pound. If only twenty-seven trees are planted on an acre, the income would be about \$675 per acre.

A. O. COOK & SON,

MANUFACTURERS OF

OAK TANNED
TRADE MARK.

Leather Belting

LACED LEATHER IN SIDES AND CUT STRINGS.

415 Market St. San Francisco.

CALIFORNIA
Concentrated
GRAPE MUSTS

FOR THE SEASON OF 1886 I WILL CONCENTRATE must of grapes from the celebrated Napa Valley.

THOS. D. CONE,

Manufacturer of California Concentrated Grape Musts

OFFICE—640 CLAY ST., (Upstairs),

San Francisco, Cal.

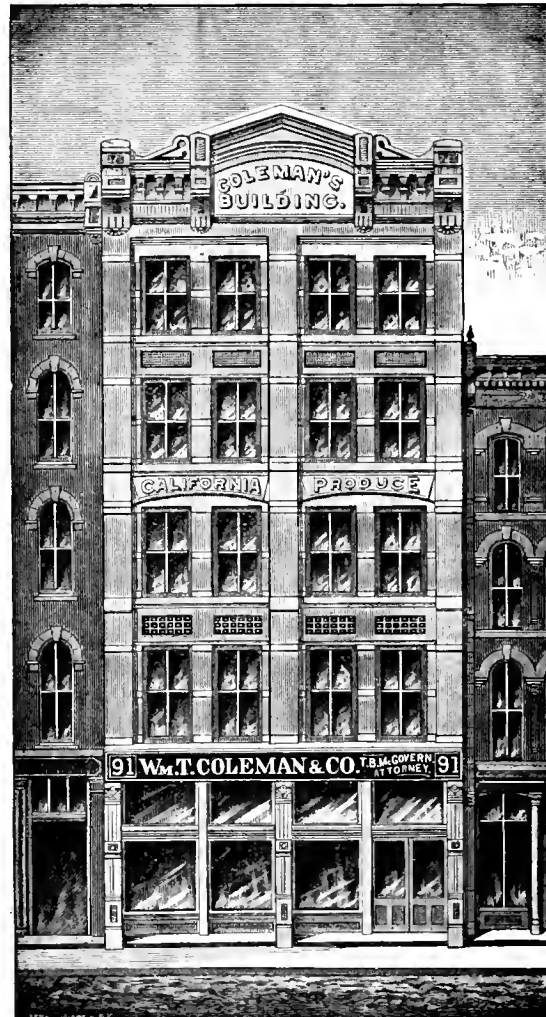
Works at Homestead, near Sacramento, Cal.

AGENCY OF

WM. T. COLEMAN & CO.

91 MICHIGAN AVENUE, CHICAGO.

California Products a Specialty.



California

Canned

Fruits,

California

Raisins.

California

Wines,

California

Dried

Fruits,

California

Oranges

COLUMBIA AND SACRAMENTO RIVER SALMON,

—AND ALL—

Pacific Coast Products Suited to Eastern Trade.

CONSIGNMENTS SOLICITED, AND ALL CORRESPONDENCE

PROMPTLY ATTENDED TO.

T. B. McGOVERN, Manager.

OUR NATIVE WINE SHIPMENTS BY SEA.

PER P. M. S. S. CO'S STEAMER CITY OF NEWYORK, JUNE 8, 1886.

TO NEW YORK.

MARSH	SHIPPERS	PACKAGES AND CONTENTS	GALLONS	VALUE
B D & Co, New York	B Dreyfus & Co.	450 barrels Wine	21050	\$9300
"	"	37 barrels Brandy	4282	7800
"	"	101 half barrels Brandy	1722	975
M C, New York	"	35 barrels Wine	5	32
Mr W, New York	Wilmerding & Co.	1 case Brandy	22,772	\$10,275
Total amount of Wine			4,287	7,832
Total amount of Brandy				

TO CENTRAL AMERICA.

M W & Co, San Jose de G'mala	Urruela & Urioste	2 cases Whiskey	10	\$28
J W & Co, Guatemala	B Dreyfus & Co.	37 barrels Brandy	150	125
B R, La Libertad	John T Wright	6 cases Wine	3	24
W J R, San Jose de Guatemala	Eugene de Saba & Co.	6 cases Wine	30	18
		6 cases Wine	30	24
Total amount of Wine			240	\$191
Total amount of Whiskey			10	28

TO PANAMA.

J R	Cabrera, Roma & Co	125 half puncheons Wine	1,495	\$400
-----	--------------------	-------------------------	-------	-------

MISCELLANEOUS SHIPMENTS.

DESTINATION.	VESSEL.	RIG.	GALLONS.	VALUE.
Tahiti	Tahiti	Eric	223	\$99
Honolulu	Zabandia	Steamer	94	227
China	San Fabio	Steamer	131	79
Mexico	Newbern	Steamer	350	207
Apia	Mariposa	Steamer	5	3
Nanaimo	Empire	Steamer	20	38
Kahului	Selina	Brig	178	167
Total			1,001	\$820

TO NEW YORK—PER STEAMER GRANADA, JUNE 15.

B D & Co	B Dreyfus & Co.	635 barrels Wine	29,844	\$13,000
S R	"	25 barrels Wine	1,157	409
S & C	"	75 barrels Wine	3,474	1,123
J M C	"	50 barrels Wine	2,306	957
"	"	1 barrels Wine	196	100
"	"	2 barrels Brandy	100	250
L B	Fleming & Stetson	50 barrels Wine	2,372	800
Total amount of Wine			39,349	\$16,390
Total amount of Brandy			100	250

TO CENTRAL AMERICA.

J & C, Champerico	McCarthy Bros & Co.	3 kegs Wine	30	\$30
T O M, San Blas	Montcallegre & Co.	1 barrel Wine	15	40
J M L, Corinto	John T Wright	5 kegs Wine	50	37
"	"	13 cases Wine	65	58
A & S, Anapala	"	18 kegs Wine	180	181
V & V, La Union	Urruela & Urioste	10 cases Wine	50	40
C P & Co, San Juan del Sur	"	4 cases Wine	20	16
"	"	1 keg Wine	10	20
A D, Anapala	Eugene de Saba & Co.	6 kegs Wine	60	50
S G H & Co, Corinto	Wellman, Peck & Co.	10 cases Wine	50	46
"	"	10 cases Wine	50	46
F E, Corinto	"	1 barrel Wine	15	12
Total amount of Wine			595	\$556

TO MEXICO.

S & B, Manzanillo	J H Breckmann	2 barrels Wine	100	\$70
T O M, San Blas	J O Merriuk	1 barrel Wine	47	40
G & S, Manzanillo	S Lachman & Co.	110 cases Wine	550	495
"	"	12 kegs Brandy	216	342
"	"	1 keg Brandy	12	18
A M H, Manzanillo	Langley & Michaels	12 cases Wine	60	39
T E & C, Salinas Cruz	Wellman, Peck & Co.	6 cases Whiskey	30	53
"	"	2 barrels Wine	35	49
"	"	1 barrel Brandy	50	128
P R, Manzanillo	W Loria	8 cases Wine	40	24
Total amount of Wine			895	\$717
Total amount of Brandy			278	489
Total amount of Whiskey, 6 cases				53

MISCELLANEOUS SHIPMENTS.

DESTINATION.	VESSEL.	RIG.	GALLONS.	VALUE.
Honolulu	Australia	Steamer	2,163	\$2,095
Victoria	Queen of the Pacific	Steamer	1,346	1,315
Total			3,609	\$3,410
Total shipments by Panama steamers			72,346	\$25,729
Total shipments by other sea routes			4,510	4,310
Grand totals			76,856	\$33,039

THE COOS BAY STAVE & LUMBER CO.

— MANUFACTURERS OF ALL KINDS OF —

COOPERAGE GOODS !

Especially invite the attention of Wine Men to their unsurpassed facilities for supplying packages from a

5-GALLON KEG TO A 160-GALLON PIPE OR PUNcheon.

Our machinery enables us to execute all orders with promptness and economy. Price List on application.

OFFICE: 323 FRONT STREET,

WORKS.....BRANNAN ST., NEAR EIGHTH.

IMPERIAL EGG FOOD

Will Make Your Hens Lay.

IMPERIAL EGG FOOD AND DISEASE CANNOT THRIVE TOGETHER IN THE SAME RUNS

SEE THAT THIS



IS UPON

TRADE MARK

Every Package.

THIS GREAT EGG PRODUCER is prepared expressly to, and does supply all the needed materials for the formation of the egg, as also for bone, muscle and feathers, and by a tonic effect, strengthens the digestive organs and lays the foundation for vigorous, healthy, and therefore, profitable Fowls, fitting them for market a month earlier than by common means, and making POULTRY THE MOST PROFITABLE STOCK ON THE FARM. The Imperial Egg Food has proved of the greatest assistance to poultry raisers, its unequal success and popularity having led to cheap and worthless imitations, which fail entirely to produce the material of the egg, or in bringing forward the chicks rapidly, and warding off disease, the Imperial, and none other being constructed on purely scientific and physiological principle. No farmer or poultry raiser can afford to be without this means of improving the condition of his domestic fowls, increasing their egg production, and making them doubly profitable. Secure some at once, and be convinced of its great value. Complaints reaching us from all quarters to the effect that inferior goods are palmed off upon unsuspecting purchasers, under names so similar to "Imperial" as to be easily mistaken for it, we take this occasion to caution all to see that our Trade Mark is upon every package.

Retail Price—One pound package, 50c.; 2½ pounds, \$1; 6-pound box, \$2; 10-pound box, \$3 25-pound keg, \$6.25.

C. C. WICKSON & CO.,

38 CALIFORNIA STREET.....SAN FRANCISCO

WM. T. COLEMAN & CO.,

Commission Merchants.

SAN FRANCISCO,

NEW YORK,

CHICAGO,

Agency Wm. T. COLEMAN & Co.,

ASTORIA, Or.,

Agency Wm. T. COLEMAN & Co.

LONDON.

With Agents and Brokers in every Commercial City of Prominence in the Union.

WE MAKE A SPECIALTY OF HANDLING THE
RAISIN CROP OF CALIFORNIA !

And amongst others we are Agents for

Riverside Fruit Company of Riverside, Miss Mary F. Austin of Fresno, McPherson Bros. of Orange, T. C. White of Fresno.

With many other of the Most Prominent Curers of this State.

Our Facilities for Promptly Placing and widely Distributing Their Produce Can be Ascertained from the Above well-known Curers.

We are also Large Handlers of

ORANGES, DRIED FRUITS, HONEY AND BEANS

IN THE EASTERN STATES.

Advances Made when Required, and Full Information of Markets Promptly Given. Address

Wm. T. COLEMAN & Co.

MARKET & MAIN STS., S. F.

VITICULTURAL TALK.
(L. D. Combe in Santa Clara Valley.)

Now that the grape vine is putting forth such exuberant growth, and that everything looks propitious for a large crop, it is very interesting to note the marked difference in appearance between vineyards of the same age and of the same varieties. It should be considered a valuable moment for study, for those who would ascertain the best methods of training the vine, and caring for it. Appearances indicate that in many cases poor judgment was used in regulating the amount of wood that was needed for a year like this, so we see many vines that could have well supported five or six branches, left with two or three only; in consequence, these grow abnormally long, and the wind has an opportunity to break them, before such time as the summer pruning should be done. We have seen many vines summer pruned before any blossom appeared, and are disposed to condemn such practice. We should endeavor to treat our vines with a view to their welfare, and a crop of grapes instead of making their care to depend on the comfort of those who work them or the blowing of the wind. One of the principles of viticulture is that roots are produced in direct proportion to the arborescence of the vine, and, therefore, wholesale suckering when vines are young is not calculated to make them any stronger in the stalk. Localities affected by heavy winds should adopt a lower head for their vines; say eight inches from the ground, leaving one chance of tying the young growth to 4 foot stakes early enough in the season to prevent accidents. We would like to see those who intend to plant more vineyards, visit those that are in different stages of growth and ascertain the cause of the difference. The mode of planting has much to do with the yield of vines at an early age and we would back a vineyard of our planting in its third year against any vineyard of the age planted by a different process. We practiced on strong land, little or no suckering for two years, only to insure enough size to the canes to facilitate a selection at the time of pruning, and find that the roots are so powerful now, that notwithstanding much wood was left at pruning time, we dare not remove other suckers than those from below the level of the ground, and instead of two or three bunches at most to a vine in the third year, the great majority can mature from six to eight apiece. Our opinion was verified last year, inasmuch as our only grapes grow on those vines that had been suckered the least. The pride exhibited by many in boasting of the immense size of the canes shows how little they comprehend the nature of the vine; while for their own profit it is better to have three branches four feet long than one twelve feet; the three may have six bunches, the one will rarely have any at all, and the vine is just as well off.

We infer from many observations that too many vine-growers think it unnecessary to study their profession; they may have seen someone succeed without parading his knowledge to the world and thinking themselves as wise, have in many cases been disappointed in the result. The traveler who knows that the road he follows is to fork at a short distance ahead, will show prudence in ascertaining before he gets there, whether to turn to the right or left. The path of the vine-grower and wine-maker is beset with enough difficulties without adding any that can easily be overcome at first.

A great deal of sulphur has also been wasted, often to the injury of the vines, as they cannot do otherwise than suffer on such hot days as we have had, with their leaves entirely covered with the sulphur, as is the case with many. While we think too much, better than none at all, we argue that with a little judgment economy can be practiced and the grapes not suffer. The extraordinary promising outlook for grapes and the very propitious weather prevailing, very naturally bring before the question of the disposition of our crops; if no accident occurs, this country will turn out much more wine than in '84. Hundreds of vines that were not producing that year, are loaded with grapes now. What capitalists are thinking of just now, instead of making ready for this opportunity is more than we can guess; the vine-growers will be left to their own resources, and the sooner they make up their minds to help themselves the better will it be for them in the end.

THE WINE BILL.

WASHINGTON, June 15.—Considerable progress was made to-day in the matter of the Stanford bill relating to wine interests. The Senate Finance Committee listened to an argument by Mr. Wetmore and considered the report from the Treasury Department. The sentiment of the committee was very favorable. The bill, with the amendments proposed by the Treasury Department, was ordered to be reported to the Senate and recommittees. There is now much reason to believe in the success of their efforts. The changes proposed by the Treasury Department are only in the direction of preventing fraud and are satisfactory to the wine interests.

We have received a copy of the rules and regulations of the Australian Wine Association of Victoria, together with a list of the members, nearly as large as that of our local society, each of whom pays one guinea [5. 25.] as annual subscription as compared with our one dollar init.

From the SAN FRANCISCO MERCHANT we have received the Report of the Fourth Annual State Viticultural Convention, held in San Francisco, March, 1886. The price of the book is one dollar, and the information of practical value contained between its covers is worth a great many times one dollar to any grower of grapes, for the table, for wine, or for raisins, in this State. Our vineyardists ought to send in orders for the book, and we can cheerfully add that if they will also subscribe for the MERCHANT they will receive fortnightly a paper in which much of very sound sense can be found.—*Rural Californian.*

A GOOD SIGN.

The Milwaukee Herald, of May 25th, a paper published in German, has a detailed and really faithful account from Washington, of the State National Viticultural Convention in Washington. We quote the conclusion of that article:

Among the gentlemen who had concurred to the Convention from the many States, not the slightest sign of jealousy was observable, although everyone was more or less proud of his product. Everyone was solicitous to give honor to whom honor is due. This concordance of opinions on the different wines, proved that all were penetrated by interest in the cause of viticulture, rather than by personal advantages. One need not be a prophet to predict a grand future for American Viticulture. This opinion is ruling in all circles here.

E.C. HUGHES
511 Sansome St., S. F.

PRINTER

W. E. CHAMBERLAIN, JR.

T. A. ROBINSON

PACIFIC
Business College,
320 POST ST.
SAN FRANCISCO.

Life Scholarships; \$75.

DAY AND EVENING SESSIONS.

Ladies Admitted into all Departments.

No Vacations. Send for Circular.

CHOICE
OLD WHISKIES
PURE AND UNADULTERATED.

We Offer for sale on Favorable Terms to the Trade,
CATHERWOOD'S
Celebrated Fine Old Whiskies,
OF THE FOLLOWING BRANDS, NAMELY
"CRANSTON CABINET"
"A.A.A." "CENTURY"
"OLD STOCK"
"HENRY BULL"
"DOUBLE B"
"MONOCRAM"
VERY OLD AND CHOICE, IN CASES OF ONE
DOZEN QUART BOTTLES EACH,
"BRUNSWICK CLUB" Pure Old Rye,
And "UPPER TEN."
For Excellence, Purity and Evenness of Quality the above are unsurpassed by any Whiskies imported. The only objection ever made to them is the manipulating dealer being that they cannot be improved upon.

Dickson, De Wolf & Co.
SOLE AGENTS,
SAN FRANCISCO, CAL.

GOODYEAR'S
"GOLD SEAL"
Rubber Hose
For Sale by All Dealers.

BELTING.

GOODYEAR RUBBER CO.
GOLD SEAL
1872
TRADE MARK
All Articles stamped with this Trade Mark are the Best Goods that can be manufactured in Rubber.

PACKING.

COODYEAR RUBBER CO.
R. H. PEASE, JR., & ADAMS
S. M. RAYMOND
377 and 379 Market St., SAN FRANCISCO

WORTH'S IMPROVED
PATENT
COMBINED TOGGLE LEVER
—AND—
SCREW PRESS.



I desire to call the attention of wine and other makers to my Improved Press. With this Press the movement of the toggle is fast at the commencement, moving one and a half inches with one turn of the screw. The last turn of the screw moves the toggle one-sixteenth of an inch. The toggle has an up and down movement of 2 1/4 inches, with the double platform run on a railroad track. You can have two curbs, by which you can fill one while the other is under the press, thereby doing double the amount of work of any other press in the market. Model on exhibition at the offices of the Board of State Viticultural Commissioners. Also manufacture Horse Powers for all purposes, Engine Cutters, Plum Pliers, Worth's System of Heating Barrels by hot water circulation. **Send for circular.**

W. H. WORTH,
Petaluma Foundry and Machine Works,
Petaluma, Sonoma Co., Cal.

Testimonials from: I. DeTurk, Santa Rosa; J. B. J. Portal, San Jose; Ely T. Sheppard, Glen Ellen; Kate F. Warfield, Glen Ellen; J. H. Drummond, Glen Ellen; Joseph Walker, Windsor; John Hinkelman, Fulton; Wm. Pfeiffer, Guerneville; J. & F. Muller, Windsor; R. C. Silver, Guerneville; L. Clark & Co., Santa Rosa; Vackey Bros., Old San Bernardino; F. Clark, William Allen, San Gabriel; James Finlayson, R. & J. J. Gold, Hualdshore; W. Metzger, Walter Phillips, Santa Rosa; J. Lawrence Watson, Glen Ellen; Geo. West, Stockton; can be had by applying for printed circulars.

Challenge Wine Pump.
WITH BRASS LINED CYLINDER, OR ALL BRASS PUMP.



The annexed cut represents our Horizontal Challenge Wine Pump of great compactness and power, for use in vineyards, for pumping from one tank into another. The cylinders of our iron pumps are brass lined, the piston rod, valves and valve seats are brass. Our all brass pumps are made entirely of brass with exception of the lever. Very suitable as a power wine pump.

Wine Tanks, WATER TANKS.
We manufacture our tanks of two inch First quality Redwood Lumber, well seasoned, free from knots, with a hoop to every foot in height and guarantee them to be well made in every respect. Write for special prices. **NOTICE.**—Send for our special Catalogue of Wind Mills, Pumps of all description, Wine Hose, Garden Hose, Wine Cocks, etc. Mailed free upon application.



WOODIN & LITTLE,
509 and 511 Market Street, San Francisco.

Treatment of the Downy Grape Mildew (Peronospora Viticola.) And the Black Rot. (Phoma Viticola.)

In view of the fact that Mildew and Black Rot have been so destructive to the vine in this country, that in some sections grape culture has become unprofitable, and for this reason many are abandoning the business, the importance of making special efforts to discover effective remedies for these diseases will not be questioned.

With this object in view, the remedies which have recently been employed in France and Italy with apparent success, are here given with the urgent request that one or more of them be tried, experimentally, and the results reported to this Department, so that the one which proves to be the most efficacious and economical may be made generally known.

Very respectfully,
NORMAN J. COLMAN,
Commissioner of Agriculture.

REMEDIES—FOR PERONOSPORA.

1. Dissolve in 10 gallons of water five pounds of sulphate of copper. Soak the stakes and whatever may be used to tie up the vines, in this solution, and, as soon as the leaves are fully formed, thoroughly spray them with the solution, using for this purpose any fine spraying apparatus. The "cyclone nozzle" with fine aperture, described and illustrated in Riley's Report as Entomologist for 1883, is probably the best device for this purpose. Repeat the operation occasionally, say once in two or three weeks.

2. Make a mixture of lime and water as one ordinarily prepares white-wash. Apply this in the same manner as No. 1, using a nozzle with a larger aperture. After rains, the application should be renewed.

3. In 22 gallons of water dissolve 18 pounds of sulphate of copper; in another vessel mix 31 pounds of lime with 6 or 7 gallons of water. Pour the lime mixture into the copper solution. Mix thoroughly and the compound is ready for use. Placed in conveniently sized buckets, it may be carried through the rows of the vineyard and applied to the leaves by the aid of brooms or whips made of slender twigs, dipped into the compound and then switched right and left so as to spray the foliage.

This remedy is very highly recommended. It is not necessary to entirely cover the leaves. Care must be taken not to get any of the compound on the berries.

4. The powder of Mr. Pondechard. This powder contains the following ingredients in the proportions given:

225 lbs. of air slacked lime; 45 lbs. of sulphate of copper; 20 lbs. of sulphur (powdered); 30 lbs. of ashes (unleached); 15 gallons of water.

These ingredients are compounded as follows: Dissolve the sulphate of copper in the water; when thoroughly dissolved, pour the solution upon the lime which is surrounded by the ashes to keep the liquor from spreading; after 24 hours add the sulphur, thoroughly mix the compound, ashes

and all, and sift through a sieve with meshes of $\frac{1}{4}$ of an inch. This preparation may be made several months before it is required for use. Its application is made simply by dusting it upon the foliage of the vines after a heavy dew or rain with any spraying or dusting device, that figured and described in the Report of the Entomologist for 1883, being well adapted to this purpose. The convenience of application renders this power especially well suited for use in the larger vineyards.

5. The ordinary milk-kerosene emulsion (see report U. S. Entomologist 1884, p. 331.), with the addition of from 2 to 5 per cent. of carbolic acid and the same percentage of glycerine, and then diluted in 20 to 50 parts of water to one of the emulsion. Spray on the under surface of the leaves by means of a cyclone nozzle of small aperture. This is known in France, where its use has been attended with satisfactory results, as the "Riley Process" having first been proposed by Dr. C. V. Riley.

FOR BLACK ROT.

The free application of the sulphate of copper and lime appears not only to act as a preventive against Mildew but Black Rot also. As a further protection against the latter disease, it is recommended that Pondechard's Powder be scattered over the grounds in the vineyard, especially where all the trimmings and fallen grapes and leaves of the previous year have not been removed.

IN THE DOCTORS' HANDS.
(Correspondence Bonfort's Wine and Spirit Circular.)

On the evening of the 2nd inst., the Medical Society of the District of Columbia held their monthly meeting. Mr. Charles A. Wetmore, the President of the National Viticultural Association, had a hearing on the subject of adulteration of wine, and the gentlemen of the faculty deputed a committee of three to investigate the merits of the Spurious Wine Bill.

The chairman of the committee on legislation, Dr. A. Y. P. Garrett, introduced Mr. Wetmore who, in an able and interesting explanation, showed the different influences on the system of the element alcohol generated by fermentation in wine, from that of alcohol distilled and added to wine, as well as the different effects of wines from various grape varieties. He showed the process of adulteration of wines, the harm done thereby financially to the honest grape grower and to the innocent consumer's health and purse, and the reasons for obtaining protection for the production and sale of pure wine. The physicians listened with marked attention to the address, the assertions of which were based upon personal investigations in wine countries, and borne out by the literature thereon. The vote of thanks to Mr. Wetmore, moved by the chairman of the committee, was rendered unanimously, and with acclamation. A collation was served and samples of American wines tested by the scientists, some forty of whom were present.

SULPHUR! SULPHUR! SULPHUR!

FOR SALE IN

QUANTITIES TO SUIT.

WM. CLUFF & CO.,

WHOLESALE GROCERS,

16, 18, 20 and 22 Front St., Cor. Pine, S. F.



THE AMERICAN SUGAR REFINERY COMPANY,

MANUFACTURERS OF THE

CELEBRATED CUBE SUGAR,

Supplies Only Exporters and the Jobbing Trade.

This Company manufactures all the Grades of HARD and COFFEE SUGARS and SYRUPS. Special attention given to the making and Packing of Loaf Sugar for Export.

208 CALIFORNIA STREET,

SAN FRANCISCO, CAL.

E. L. G. STEELE,
President.

Dr. MINTIE

THE SPECIALIST,

No. 11 KEARNY ST., San Francisco.

Treats all Chronic, Special and Private Diseases with Wonderful Success.

THE GREAT ENGLISH REMEDY



Is a never-failing cure for Nervous Debility, Exhausted Vitality, Seminal Weakness, Spermatocoea, LOST MANHOOD, Prostatitis, Impotency, Paralysis and all the terrible effects of self abuse, youthful follies and excesses in mature years, such as loss of Memory, Lassitude, Nocturnal Emissions, Aversion to Society, Phases of Vision, etc. Noises in the Head, excess in drinking intoxicating liquors, the vital fluid passing unobserved in the urine, and other diseases that lead to insanity and death.

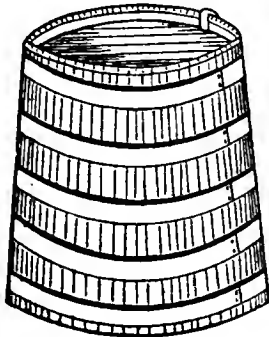
Dr. Mintie WHO IS A Regular Physician Graduate of the University of Pennsylvania, who will agree to forfeit \$500 for a case of this kind the **Vital Restorative**, (under his special advice and treatment) will not cure, or for anything impure or injurious found in it. Dr. Mintie treats all PRIVATE DISEASES SUCCESSFULLY WITHOUT MERCURY. Consultation Free. Thorough examination and advice, including analysis of urine, \$5. **Pain or Vital Restorative**, \$1.50 a bottle or four times the quantity, \$5; sent to any address upon receipt of price, or C. O. D., secure from observation, and in private name if desired, by Dr. A. E. Mintie, 11 Kearny street, San Francisco, Cal. Send for pamphlet and list of questions.

SAMPLE BOTTLE FREE.

Will be sent to any one applying by letter stating symptoms, sex and age. Strict Secrecy in regard to all business transactions.

DR. MINTIE'S KIDNEY REMEDY NEPHRETICUM, cures all kinds of Kidney and Bladder Complaints, Gonorhoea, Gleet, Leucorrhoea, etc. For sale by all Druggists; \$1 a bottle, 6 bottles for \$5.

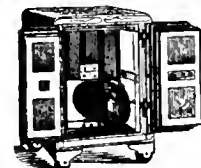
DR. MINTIE'S DANDELION PILLS are the best and cheapest **DYSPEPSIA** and **BILIOUS** cure in the market. For sale by all Druggists.

REDWOOD TANKS**F. KORBEL & BROS.**

727 BRYANT ST., S. F.,

Or at NORTH FORK MILL, Humboldt Co., Cal.

FIRE-PROOF SAFES ALL SIZES.



built to order.

CHAS. WALTZ, inventor and Manufacturer of the Fire and Burglar Proof Safes, Time Locks, Bank and Vault Work, a Specialty. Expert work done in opening and repairing Safes and Locks. Beard's Patent Screw Door Burglar Proof Safes and Chests. Safes

CHAS. WALTZ, 11 Drumm Street, SAN FRANCISCO, CAL. Write for prices and information.

RUPTURE RADICALLY CURED by Dr. Pierce's Great Discovery. Thousands of patients cured AT THEIR OWN HOMES. No Experiment! It Does the Work! DR. PIERCE & SON, 704 Sac to St., San Francisco, Cal.

J. N. KNOWLES, MANAGER

EDWIN L. GRIFFITH, SECRETARY

ARCTIC OIL WORKS.

MANUFACTURERS OF

Sperm Whale, Elephant and Fish Oils, Skid Grease,

WHALE OIL SOAP.

ESPECIALLY ADAPTED FOR VINEYARDS AND FRUIT ORCHARDS.

OFFICE—28 CALIFORNIA STREET, S. F., CAL.

EL PINAL VINEYARD,

Stockton, Cal.

Cuttings and Vines For Sale of the following varieties:

PETIT BOUSCHET, MONDEUSE, VERDOT, ALICANTE BOUSCHET, BOAL CABERNET FRANC, MALBECK, CABERNET SAUVIGNON, MANTUO DE PILAS, MANTUO CASTILLANO, PEDRO XIMENEZ, MALMSEY, LENOIR PALOMINO, VERDELHO, TANNAT, PERUNO, VEBE.

And other recently imported varieties, including True Port and Sherry varieties from Spain and Portugal.

GEO. WEST, Stockton, Cal.

TO CLARIFY WINES.

(BOTH WHITE AND RED)

WAHL BROS.**GRANULATED ISINGLASS**

HAS NO EQUAL.

It is SUPERIOR and CHEAPER than any other ISINGLASS in the Market.

Try It. Send for Sample.

JOHN T. CUTTING & CO., Agents,

23 CALIFORNIA STREET,

San Francisco.

CLARIFYING AND PRESERVING WINES.

The undersigned having been appointed Sole Agents on the Pacific Coast by Messrs. A. BOAKE & CO., Stratford, Eng., for their renowned

LIQUID ALBUMENS,

Be to call the attention of Wine Growers and Wine Merchants to the following articles, the superior merit of which has been confirmed by Silver Medals, the highest awards given at the International Exhibition of Paris 1878, Bordeaux 1882, and Amsterdam 1883, viz:

**LIQUID ALBUMEN FOR RED WINES,**

Claret, Burgundy and Port.

**LIQUID ALBUMEN FOR WHITE WINES,**

Hock, Sauternes, Sherry and Madeira, also for distilled liquors; Whisky, Gin, etc., etc.

**WINE PRESERVER,**

For Preserving the Brilliance of the wines.

**WINE CORRECTOR,**

For Correcting the Roughness of Young Wines.

**WINE RESTORER,**

For Restoring Badly Made or Badly Treated, Harsh and Tart Wines.

A trial according to directions will prove the superior qualities of these finings. For sale in quantities to suit by

CHARLES MEINECKE & CO., Sole Agents,

314 SACRAMENTO STREET, SAN FRANCISCO.

The Contest Settled.

The Documents Speak For Themselves.

Below We Publish the Awards as Given, Diploma, Gold Medal and Special Mention.

HIGHEST AWARD

-- AT THE --

New Orleans Exposition

-- TO THE --

ANTISELL PLANOS

-- OF --

SAN FRANCISCO, CAL.

IT WILL INTEREST THE MUSICAL PUBLIC AND persons interested in the purchase of Planos to read the following Jury's award and congratulatory of the United States Commissioners at the New Orleans Exposition to the T. M. Antisell Piano Company of San Francisco, Cal.

THE WORLD'S INDUSTRIAL AND COTTON CENTENNIAL EXPOSITION.

NEW ORLEANS, MAY 29, 1885.

MESSRS. T. M. ANTISELL PIANO CO.—GENTLEMEN: At the closing of the World's Industrial and Cotton Centennial Exposition, allow us to congratulate you on your success in being awarded the highest award of merit for your Planos over all American and foreign exhibits and competitors. That a California manufacturer should win the first prize for the Best Piano in the World we consider well worthy of mention by United States Commissioners of this Exposition.

Frank Bacon, Pres't, Ed. U. S. Com., Kansas.
George L. Shoup, " " Idaho.
Robt. W. Furnas, " " Nebraska.
John C. Keffer (acting), " " Ohio.
R. E. Flemming, United States Com'r, Dakota.
John S. Harris, " " Montana.
E. W. Allen, " " Oregon.
F. M. Murphy, " " Arizona.
F. W. Noble, " " Michigan.
B. H. Seligson, " " Florida.
P. M. Wilson, " " N. Carolina.
J. C. Truman, " " New York.
E. Spencer Pratt, " " Alabama.
E. J. Koche, " " S. Carolina.
C. L. Barrow, " " Louisiana.
Henry Merrill, " " Wyoming.
P. Langhammer, " " New Mexico.

THE WORLD'S INDUSTRIAL AND COTTON CENTENNIAL EXPOSITION, NEW ORLEANS.

JURY REPORT

Application No. Special.
Group Class

COMPETITION.

The undersigned jurors in the above entitled class having carefully examined the exhibit made by the ANTISELL PIANO COMPANY OF SAN FRANCISCO, CAL., and all competing exhibits, concur in recommending the award of a FIRST CLASS MEDAL AND DIPLOMA, THE HIGHEST AWARD OF MERIT FOR PIANO EXHIBIT FOR STRENGTH, DURABILITY, EXCELLENCE OF TONE, AND FOR THE SUPERIOR QUALITY OF LUMBER USED IN THE CONSTRUCTION.

Dated this 27th day of Mar, 1885.
JAS. T. TRUMAN,)
FRANK BACON,) Jurors.
GEO. L. SHOUP,)

It will be observed that the President of the United States Board of Commissioners, Governor Bacon of Kansas, was also a member of the jury that gave the Antisell piano award; also Colonel Truman of New York and Colonel Shoup of Idaho. These gentlemen not only signed our jury report, but also the special mention. We thus give positive proof of our victory. Four other awards are claimed by piano manufacturers, but we have never seen any evidence of their premiums, not even to the value of a leather medal—simply their own assertion. False telegrams and publications from New York won't humbug Californians. It won't do to say that the Antisell pianos were not entered for exhibition or competition. No piano could be got into the exhibition unless regularly entered. New York manufacturers are trying to break down our awards, as they don't like to see San Francisco carry off the honors.

T. M. Antisell Piano Co.

24 to 28 ELLIS ST., S. F.

HONOLULU CASTLE & COOKE,

SHIPPING AND

COMMISSION MERCHANTS

Honolulu, Hawaiian Islands.

—AGENTS FOR—

THE KOHALA SUGAR CO.,
THE HAIKU SUGAR CO.,
THE PAPAIOU SUGAR PLANTATION
THE WAIALUA SUGAR PLANTATION
THE PAIA PLANTATION
A. H. SMITH & CO.,
THE N. E. M. LIFE INSURANCE
CO. BOSTON,
THE UNION INSURANCE CO.
OF SAN FRANCISCO,
THE GEO. F. BLAKE MFG CO.,
STEAM AND VACUUM PUMPS,
D. M. WESTON'S CENTRIFUGAL
MACHINES.

WM. G. IRWIN & CO.

SUGAR FACTORS AND

COMMISSION AGENTS

Honolulu, H. I.

—AGENTS FOR—

HAHALAU PLANTATION.....Hawaii
NAALEHU PLANTATION.....Hawaii
HONUAPO PLANTATION.....Hawaii
HILEA PLANTATION.....Hawaii
STAR MILLS.....Hawaii
HAWAIIAN COM'L & SUGAR CO.....Maui
MAKEE PLANTATION.....Maui
WAIHEE PLANTATION.....Maui
MAKEE SUGAR CO.....Kaua
KEALIA PLANTATION.....Kaua

Agents for the

OCEANIC STEAMSHIP COMPANY.

WINE WANTED.

Having more orders than we can fill, we offer our services as

AGENTS

—FOR—

PRODUCERS ONLY.

CORDELIA WINE COMPANY,

660 MISSION STREET, San Francisco

ANGLO-NEVADA

Assurance Corporation

—OF—

SAN FRANCISCO, CAL.

FIRE and MARINE.

Subscribed Capital \$2,000,000.

OFFICE: 410 PINE ST.

DIRECTORS:

LOUIS SLOSS, J. W. MCKAY,
J. E. HAGGIN, W. F. WHITTIER,
J. ROSENFELD, E. L. EYEL,
J. L. FLOOD, E. L. GRIFFITH,
G. L. BRANDER, J. GREENLEAF,
W. H. DIMOND

This Corporation is now prepared to receive applications for Fire and Marine Insurance

G. L. BRANDER, President
J. L. FLOOD, Vice-President
C. P. FARNFIELD, Secretary
J. S. ANGUS, Assistant Manager

Bankers, The Nevada Bank of San Francisco.



THE SOUTHERN PACIFIC CO.,

Keeps in constant communication with the principal
PASSENGER SERVICE TO THE SUPERIOR L. V. H. P.
It is also the "Northern Division" of its line
and is the principal

SUMMER AND WINTER RESORTS OF CALIFORNIA

WITH STEEL, SAFETY AND COMFORT.

Pescadero, Menlo Park, Santa Clara,
San Jose, Redwood Mineral Springs,
Geary Hot Springs.

-MONTEREY-

Camp Goodell, Aptos, Loma Prieta,
Monte Vista, New Brighton, Sequel,
Camp Capitola, and

SANTA CRUZ.

PARAISO HOT SPRINGS.

EL PASO DE ROBLES

HOT AND COLD SULPHUR SPRINGS.
And the only Natural Mud Baths in the World.

This Road runs through one of the richest and
most fertile sections of California, and is the only line
traversing the famous Santa Clara Valley, celebrated
for its productiveness, and the picturesque and park-
like character of its scenery. It also the beautiful San
Benito, Pajaro and Salinas Valleys, the most flourish-
ing agricultural sections of the Pacific Coast.

Along the entire route of the "Northern Division"
the tourist will meet with a succession of extensive
Farms, Delightful Suburban Homes, Beautiful Gar-
dens, Immense Orchards and Vineyards, and Luxu-
rious Fields of Grain, indeed a continuous panorama
of enchanting Mountain, Valley and Coast scenery is
presented to the view.

Characteristics of this Line:

GOOD ROAD-BED. STEEL RAILS. ELEGANT CARS.
LOW RATES. FAST TIME. FINE SCENERY.

Ticket Offices: Passenger Depot, Townsend street,
Valencia St. Station, and No. 413 Market Street,
Grand Hotel.
A. P. BASSETT, H. R. JUDAH,
Superintendent, Asst. Pass. and Tkt. Agt.

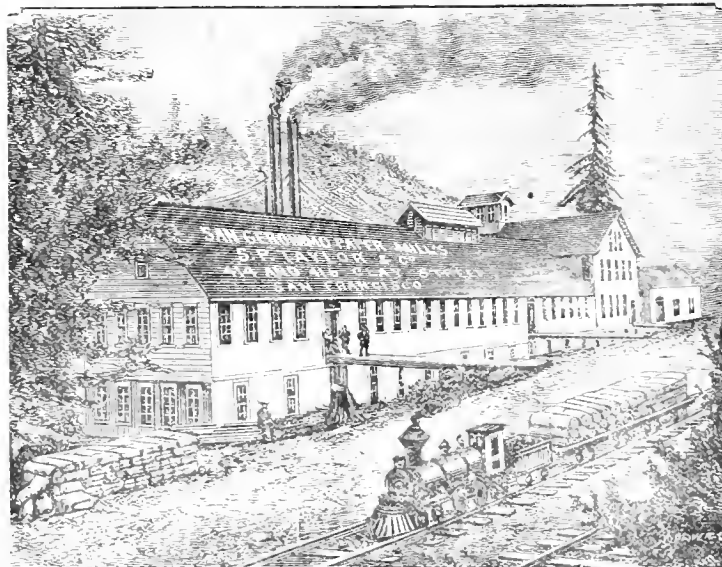
1856.

PAPER.

1886.

S. P. TAYLOR & CO.

Manufacturers of and Dealers in Paper of all kinds.



Book, News, Manila, Hardware, Straw and Tissue

PAPERS.

Paper Bags, Twines, Etc., Etc.

PRINTED WRAPPERS A SPECIALTY.

Printed and San Francisco Mills Agents for South Coast Straw Mills.

411 and 413 CLAY ST. SAN FRANCISCO.

S. P. COMPANY.

QUICK TIME AND CHEAP FARES

To Eastern and European Cities

Via the Great Transcontinental All Rail Routes.

SOUTHERN PACIFIC COMPANY.

(P.O. BOX 100)

Daily Express and Emigrant Trains make prompt con-
nections with the several Railways Lines in the East,

CONNECTING AT

NEW YORK AND NEW ORLEANS

with the several Steamship Lines to

ALL EUROPEAN PORTS.

PULLMAN PALACE SLEEPING CARS

attached to Overland Express Trains.

THIRD-CLASS SLEEPING CARS

are run daily with Overland Emigrant Trains.

No additional charge for Berths in Third-class Cars.

220 Tickets sold, Sleeping-car Berths secured, and
other information given upon application at the Com-
pany's Offices, where passengers calling in person can
secure choice of routes, etc.

Railroad Lands

FOR SALE ON REASONABLE TERMS.

Apply to, or address,

W. H. MILLS, JEROME MAIDEN,
Land Agent, Land Agent,
C. P. R. R. SAN FRANCISCO, S. P. R. R. SAN FRANCISCO

A. N. TOWNE, T. H. GOODMAN,
General Manager, Gen. Pass. & Tkt. Agt.
SAN FRANCISCO, CAL.

REWARD OF \$10-\$50 TO EVERY PERSON
sending us valuable information of school vacan-
cies and needs. No trouble or expense. Send stamp
for circulars to CHICAGO SCHOOL AGENCY,
185 South Clark Street, CHICAGO, ILL.
N. B. We want all kinds of Teachers for Schools
and Families.

SHIPPING.

OCEANIC STEAMSHIP COMPANY.

Carrying the United States, Hawaiian and Colonial
mails for

HONOLULU,
AUCKLAND,
and SYDNEY

WITHOUT CHANGE.

The splendid new 3,000-ton Steamship



MARAROA

Will leave the Company's wharf, corner Stuart
and Tolson streets,

SATURDAY, JULY 3d at 2 P. M.
Or immediately on arrival of the English mails.

FOR HONOLULU AND RETURN

The Steamer

ZEALANDIA.....Thursday, July 1st

For freight or passage apply at office, 327 Market at

JOHN D. SPRECKELS & BROS.,
General Agents.

OCCIDENTAL & ORIENTAL STEAMSHIP COMPANY.

for JAPAN and CHINA.

Steamers leave Wharf, corner First and Brannan sts.,
at 2 o'clock, P. M., for

YOKOHAMA and HONGKONG.

TOUCHING AT HONOLULU,

And Connecting at Yokohama with steamers for
Shanghai, 1886.

STEAMER. ON SAN FRANCISCO.
OMEXICAN.....TUESDAY, JUNE 22d
GAELIC.....SATURDAY, JULY 10th
BELGIC.....SATURDAY, JULY 31st
SAN PABLO.....SATURDAY, AUGUST 21st

EXCURSION TICKETS to Yokohama and return
at reduced rates.

Cabin places on exhibition and Passage Tickets for
sale at C. P. R. R. Company's General Offices, Room 74,
corner Fourth and Townsend streets.

For freight apply to GEO. H. RICE, Freight Agent,
at the Pacific Mail Steamship Company's Wharf, or
at No. 202 Market street, Union Block.

T. H. GOODMAN, Gen. Passenger Agent,
LELAND STANFORD, President.

SPRAY PUMPS.

Fruit Growers, Farmers, and all desiring to purchase
a Spray Pump that is far ahead of all others in the
market, as it is the ONLY Pump made with all metal
valves, should buy the "CLIMAX SPRAY
PUMP," all complete with tube, spray nozzle,
plain nozzle, galvanized iron can, six feet of best Rub-
ber Hose; capacity, 8 gallons; all ready to use. Price,
\$15.00. Good Agents wanted at once. Send for
Circulars. 211 California St., San Fran-
cisco, Cal.

FRED'K WM. LUTTGEN,

COMMISSION MERCHANT.

(P. O. BOX 800) 51 Warren St., New York.

Solicits consignments of California Produce, and
orders for the purchase of Merchandise, generally.
Eastern Agent for Eclisse Champagne.

JAMES HUNTER.

GAUGER OF WINES AND SPIRITS.

(Established 1851.)

OFFICE—323 FRONT STREET.

San Francisco.



IMPORTERS OF ALL KINDS OF

Printing and Wrapping Papers.

101 & 103 NASSAU ST. S. F.

THE SAN FRANCISCO MERCHANT.

THE ONLY VITICULTURAL PAPER IN THE STATE.

Devoted to Viticulture, Olive Culture, and other Productions, Manufactures and Commerce of the Pacific Coast.

VOL. XVI, NO. 36

SAN FRANCISCO, JULY 2, 1886.

PRICE 15 CENTS

WINE AND THE PHYSICIANS.

Some Things Which Everybody Ought to Know.

(Washington Sunday Herald, June 13th.)

A brief notice of the meeting of the Medical Society of the District of Columbia at Welcker's, and of the address of Mr. C. A. Wetmore, President of the National Viticultural Association, on the subject of adulterated wines, appeared in our last issue, the lateness of the hour on Saturday evening preventing a more extended report. This movement in the medical profession, however, demands public attention. The appeal made on behalf of the vine growers to a disinterested body of scientific men, who are by practice and profession the leaders in questions of hygiene and sanitary reforms, indicates a confidence in the merits of a cause which most command the respect of legislation.

The measure relating to spurious and adulterated wines now before the Ways and Means Committee of the House, (agreed to in the sub-committee), and before the Senate Finance Committee, as a proposed amendment to a pending revenue bill, have been fully presented to the public. All who are interested in the industry of genuine wines, as well as their dark-lantern opponents, have been informed of every step that has been taken during the last six months. After the closest scrutiny the proposed legislation receives the unanimous indorsement of the State Viticultural Commission of California, the California Grape Growers' and Wine Makers' Union, the National Viticultural Association, and local associations and viticultural leaders in New York, New Jersey, Virginia, North Carolina, South Carolina, Georgia, Ohio, Missouri, Texas, Colorado, and other States where viticulture is looked toward for the development of local resources. There are no partisan politics in this cause. Mr. Wetmore, the Chief Executive Officer of the California State Commission, who is a Republican, has just been reappointed by Governor Stoneman, who is at the head of a Democratic administration, and was the bearer of a letter from the Governor on behalf of the State to President Cleveland, commending him and his mission to the courteous attention of the National Administration. The bills presented to Congress

have first been carefully examined and revised in the Treasury Department, and have been introduced in the House in part by Hon. Wharton J. Green of North Carolina and Hon. W. W. Morrow of California, and in the Senate by Senator Stanford of California. Both Representative Green and Senator Stanford are vine growers, and their action is in perfect harmony with the desires of this national industry wherever represented, and opposed only by swindling operators, none of whom dare to present their case openly before any committee of Congress, but who content themselves with raising obstacles intended to obstruct legislation.

The State of California has charged the State Viticultural Commission with the duty of disseminating instruction on the rational uses and dangers of abuses of fermented and alcoholic beverages, thereby elevating its work above selfish considerations. We have published from time to time extracts from reports of the California Commission and correspondence with Government officials, the tenor of which indicates that the cause of the vine growers is led before the public by educated men, who respect their personal reputations and are resolved to win public respect for themselves as well as for their industry, being, as they are, uncompromisingly the determined foes of fraud, imposition and habits of intemperance. As an instance of this healthful tone of public discussion, we quote the following paragraphs from Mr. Wetmore's last official report:

"While improved facilities for trade and mercantile competition have steadily reduced the prices of our wines to the retailer, the constantly increasing demand and more critical taste of consumers have in like degree advanced the prices paid for grapes and new wines in the country. The facilities granted by the law for bonding spirits have rendered it practicable to distill at reasonable profits, and so to relieve the wine markets in a measure of inferior grades. The brandy law is, however, still very defective. Wider facilities for transporting in bond, and regulations for the change of size of packages, and refilling loss by evaporation under distillers' stamps are required. The producer has also the right to demand of the Government the right to hold his goods until they are properly matured before being compelled to sell them.

"The enforcement of a heavy tax on production before the distiller has matured his goods, and before he can place them on the market, demoralizes the industry and causes vexatious annoyances, sometimes actual confiscation. Brandy is no sooner in bond than the owner is looking for a purchaser, fearing as he does the danger of being caught at the end of the bonded term with unsold property. The present law would only be just in case the Government should assume the cost of manufacture when it forces spirits upon the market. The injustice of enforcing a confiscation tax on property which the owner does not offer for sale or consumption is so apparent that no unprejudiced citizen can sustain the policy. The greater part of the evils of intemperance is attributable to the action of the Government. In England recently a reform has been agitated by friends of temperance on the principle of prohibiting the sale for consumption of any spirits under three years of age. In this country producers are compelled by the Government to sell within that time or submit to a forced loan of an amount greater than the cost of production.

"The policy of enforcing high licenses and oppressing retailers by bell-punch taxes and the like drains upon their revenue, which at the same time permit unrestricted competition, operates to reduce the quality of goods sold to the consumer. There would be great wisdom in municipal regulations, based on careful calculations of the custom necessary to sustain retailers, by which the number of saloons should be limited according to the ascertained consumption at such places in each community, so that excessive competition and taxes should not force the sale of the cheapest and most inferior goods. Supplementary to such regulations the people have an undoubted right to demand strict supervision to prevent imposition. In fact, if spirits should be treated by the law as products which should not be sold in places of convivial entertainment, where the necessary caution in selecting and consuming is often impracticable by reason of the social conditions surrounding the act, but which should be limited to places where no consumption is permitted on the premises, or on any other where the trade in spirits is interested in the profits, the wine and brandy producers would have no just cause for complaint. If the sale of spirits is

properly regulated the producers would have just cause to complain against discrimination and unjust taxation and oppression, both in their own behalf and for the protection of consumers.

"Present efforts of those who aim to diminish the occasional evils of intemperance are conducted on the principle that the many who are innocent shall wear straight jackets in order that the foolish few may be restrained. The innate disposition for the preservation of personal liberty compels the many to assume in part the attitude of defending intemperance. Wise regulations for the prevention of alcoholic abuses, without interfering with the personal liberty of those who require no legal restraints, would meet with the cordial support of the great majority of viticulturists. These latter would not be so foolish as to anticipate any millennium, nor to imagine that criminal indulgences would be much less marked in the general average of the people than they are now in the ranks of total abstainers. No real progress can be made in reforming intemperate habits without curing intemperance itself, which is a habit of undisciplined mind, rather than any particular method of exposing the same. The so called intemperance, by which word is usually meant abuse of alcoholic drinks, is only one phase of intemperate life; restraint of one means of self-indulgence does not cure the complaint. The abuse of alcoholic drinks indeed often is induced by disordered physical and nervous conditions of health, due either to overwork, periods of abstinence and poor nutrition, continued and irregular fasts of mind in respect to social intercourse, sedentary occupations in badly ventilated apartments, with long fasts between morning and evening meals, and their attendant consequences—torpidity of natural appetite, low spirits, headaches and biliousness, enforced idleness for active minds, and unrestrained criminal desires. The evils in these cases lie deeper than in the occasional or habitual abuse of alcoholic stimulants; and the habit of drinking sound dry wines at meals would cure most of these, or alleviate the misfortunes that arise from unequal burdens of life. In many cases an uncontrollable tendency to alcoholic excesses might be cured by the administration of a dose of calomel and quinine, followed by the free use of claret and water at meals,

and reputation of the anti-bibulous treatment as the tendency to intemperance recurs.

"It is to the physicians and scientific students of life, who do not expect any millennium, that society should look for the reform of alcoholic abuses; and to the wholesome restraints and discipline of youth in homes that permanent progress in social growth and healthfulness must be traced.

"As to criminal acts committed during alcoholic excesses, we may assume that intemperance is the result of criminal conditions of the mind, which sets no restraints upon ambition and desire. As to insanity, who can tell whether it is not the insane disposition that leads to alcoholism?

"A society for the promotion of temperance from truly scientific standpoints, and free from the intemperate desire to use political power contrary to the best interests of the development of individual character, should be organized in this country. No better model for study could be found than the society which now flourishes in France, while much might be added to its scope in the way of disseminating public information and reviving parental control and discipline."

In appealing to the medical profession in his address before the society of this District, Mr. Wetmore stated that there was so much of selfish interest apparently involved in the advocacy of legislation which was demanded by the vine growers that to prevent misconceptions it became necessary to call upon the proper representatives of consumers, who were really the most interested in results, to show that public sanitary policy demanded prompt action by Congress. He explained the nature of the pending bills, which involve two distinct propositions, viz.:

First—The enforcement through amendatory provisions of the existing law (sec. 3328, Revised Statutes), taxing spurious wines, in order that the revenue stamps may serve as a means to identify bogus wines and prevent imposition as much as possible, with special provisions for the absolute suppression of beverages containing adulterations known to be positively deleterious to public health.

Second—The remission of the internal revenue tax on pure grape spirits used necessarily in fortifying sweet wines (such as Port, Malaga, etc.) to preserve them from fermentation, with provisions carefully drawn to prevent the use of spirits in other wines, which would only be done to facilitate impositions at the cost of the public health.

Without this latter privilege the wine growers were prohibited by reason of the tax from exporting any sweet wines to enter into competition with similar articles which contained no element, as to cost, from taxation, and it would be also a measure of relief in the domestic market against the temptation to the use of cheap alcohols. Foreign sweet wines are admitted to this country without any tax on the additions of distilled spirits. The internal revenue tax on spirits in California sweet wines amounts to an average of twenty cents for each gallon of wine; transportation by railroad lots to the Atlantic States being generally fifteen cents, and by reason of distance, charges of commissions, etc., are excessive, hence the great temptation in competing in domestic markets against imported sweet wines to use the cheapest forms of alcohol and the demoralization of the industry. Good grape spirits, suitable for fine sweet wines, such as are required by

the medical profession, cost as much without tax as neutral grain spirits tax paid. The properties of fine Ports and other sweet wines frequently prescribed by physicians depend very largely upon the quality and kind of spirits used in fortifying them, and all medical practice in the use of such wines is based on the supposition that pure grape spirits are used instead of grain or potato alcohol. The passage of the provisions relating to the tax on grape spirits in sweet wines would enable producers to export, and so prevent unnecessary distillation, would improve the quality of ordinary stocks on the market, and would enable physicians to prescribe wine intelligently. Every obstacle to expansion of sales of wine in its natural condition will, with the growing production, force distillation, and tend to further glut the markets with spirits. In this sense it is to the interest of Kentucky and other distilling States to assist in facilitating the demand of the wine makers. California will in three years produce enough wine to make, if distillation were forced, twelve to fifteen million gallons of brandy annually. Such a result would be a disaster to all concerned.

The enforcement of the tax on spurious wines and the suppression of those products which contain known poisonous adulterations. In this measure the medical profession is most directly interested, as it affects immediately the hygienic control of the family table as well as also the purity of wine as a medicine. It is interesting to Maine, Iowa and Kansas, as well as to California, New York, New Jersey, Ohio, Virginia, Missouri and other vine growing States. Maine uses great quantities of cider (apple wine), which product is very commonly adulterated with salicylic acid to preserve sweetness and with common alcohol to cheat the temperance devil. Physicians in Maine frequently need other forms of wine besides the wine of Maine orchards, containing sufficient strength naturally to age them without distilled spirits or adulterations. Yet it is impracticable for any physician to prescribe wines or spirits in any cases of fever, inflammation, debility, malaria, or declining old age, as they do not know how to direct patients to procure the same true to prescription. The proposed law defines pure wines, (including cider), and require that all packages of the same, in order to be exempt from taxation, shall be marked as "Pure according to United States standard," with a penalty of heavy fine and imprisonment for knowingly placing false marks. Such marks, backed by the fear of the penalty and the confiscation of illicit goods would be worth more to the medical practitioner than any number of chemical analyses, which latter in the case of articles of commerce are always predicated upon samples specially selected by the producer or tradesman, and cannot relate practically to the goods actually labeled with testimonials.

As to the most prominent features of spurious and adulterated wines Mr. Wetmore explained them in full, the following being a brief resume:

First—The characteristic feature of ordinary table wines (dry wines, such as Claret, Burgundies, Hocks, etc.), is the absence of distilled spirits, which can never enter into them sufficiently to materially affect their strength, except for purposes of imposition. True wines (excepting fortified sweet wines and sherries, which are never used except sparingly) are fermented fruit juices, containing the properties of fresh fruits, with elimination of fermentative principles that

cause stomacic disorders, together with consequent evils, such as gout, neuralgic pains, rheumatism, torpid livers and urinary complaints. Such wines are distinguished again into white and red, the former being juices fermented separately from the skins, seeds and pulp, and the latter owing their tonic properties to the fermentation of the whole fruit, especially to the extractive principles of the seeds and skins, associated with the colors naturally derived thereby, the natural colors being the indications of the methods of production.

Second—Therapeutically and hygienically there is a vast difference between the physiological and nutritive effects of natural wines and liquids containing equal amounts of distilled spirits, even though the spirits were derived from the wines with which such liquids are composed. The ordinary wine drinker, who uses such beverage at the table, habitually, with healthful and agreeable results, would soon ruin his constitution as well as pervert his taste, if in place of natural wine there were imposed upon him an imitated article, the alcoholic strength of which was derived from distilled spirits. There are also equal great differences between the effects from the constant use of white and red wines. The consumer who demands claret, knowing its rational use and its tonic properties, would be grievously imposed upon if he were to drink a beverage falsely colored, saying nothing even of the injury he might receive directly from such adulterations.

Third—Honest sound wines, which have been kept long enough to free themselves from fermentative matter, need no antiseptics to preserve their brightness. All antiseptics, such as salicylic acid, etc., are used because they cause destruction of, or suspend action of germ life, the organic life of fermentation; when used carelessly or habitually such destroyers of lower forms are injurious to the high form of life and are therefore inadmissible as a part of daily food, or of medicine in which their presence is not suspected.

Fourth—The natural fruit acids and salts, (such as bi-tartrate of potash, cream of tartar, etc.), found in natural fruit juice and wine are combined in the laboratory of nature as mysteriously as are the mineral constituents of natural medical waters. It is impossible for the chemist to separate these properties and then to reproduce the originals for the purposes of the physician, or for alimentation. Imitations of wine on the pretension of chemical reproduction of nature are the worst abominations that can fall before the innocent purchaser, and may even be the most difficult for the chemist to detect.

Fifth—The imitation of the natural ethers (bouquet) and flavors of old fine wines can, not replace the true indications of natural old wines; they may cheat the inexperienced, but are always revealed to the senses of the expert. Natural ethers of old wines constitute largely the value of the same in their influence upon the nervous constitution, being also guides to determine the true nature of products.

Sixth—The foregoing principles suggest the principal objects for imitation and adulteration and outline the necessary basis for legislation. Alcohol (generally the cheapest and worst for consumption) and water are used as a foundation for building imitations, or as a means for enlarging the volume of natural wines, in the latter case the object in view being to double or "stretch" products to be sold at less cost

than natural wine. Such a practice permits merchants in New Orleans and other places to buy cheap California wine at wholesale at fifty cents per gallon and to retail it, delivered to consumers' houses, at thirty-six cents per gallon; the consumer objects to the quality, but is pacified by the price, and blames the California vineyards, which gradually lose custom as the consumer finds such wine unwholesome. Such expansions of wine must be fortified in color to stand the water; hence the use of aniline and other dyes injurious to health as well as deceptive as to quality. Such mixtures are generally made with very young cheap wines, and more or less with compounds of fruit juices, imported for the sake of the alcohol contained in them, smuggled into the country by permission of the customs officers. Such mixtures with water enter into fermentations and tend to vinegar easily. Hence the use of salicylic acid or other antiseptics to keep them bright. False spirit, false color and antiseptics are the chief elements in spurious wines, without which there would be little profit to the dark-lantern invaders of the fireside repast and the masked cheats of the drug store. Other adulterations and concoctions out of whole cloth may be enumerated, but they all, more or less, involve these elements of fraud. Millions of gallons of such material, either alone or mixed to cheapen natural wine, are produced and sold in this country. As an instance of the magnitude of the "business," the public records show an importation of more than 600,000 gallons of alcoholic fruit juices into New York and even 70,000 into San Francisco. Each gallon when mixed with wine and "stretched" with water represents two gallons, and the whole representing a steal from the public treasury of nearly a million dollars annually.

A recent official analysis of a large number of samples of these so-called imported fruit juices made by the State Analyst of California, the Professor of Chemistry at the State University, shows that they commonly contain artificial coloring matters as well as alcohol.

An analysis, made by the same officer, of a sample of stock wine from a leading house in New Orleans, shows aniline dyes and salicylic acid. Another by the same officer shows salicylic acid in a so-called unfermented wine sold in New York. An examination of sweet ciders held for summer consumption would show badly for the public as to antiseptics, and, as to distilled spirits, hard cider in local-option districts has become a substitute for whisky by excessive fortification with cheap alcohol.

The Medical Society of this District has done well to take the question in hand. This committee will be influential when addressing Congress in favor of the bills of the wine producers.

Australia and California.

The Australian wine trade is going ahead. One of the largest wine-importing firms in London has found it necessary to lease new bonded vaults to the city, which are capable of holding 10,000 hogsheds. The English people will make a distinct advance in the direction of national sobriety when they shall renounce the heady concoctions designated Continental wines for the pure and whole some juice of the grape grown either in Australia or California.

If you do not receive your paper regularly, notify us at once.

PURE WINES.

The Outlook for the Bills Now Pending in Congress.

WASHINGTON, June 19th.—Senator Jones of Nevada, made an effort to get a special meeting of the Finance Committee to consider the wine bills, but owing to the illness of Senator Morrill, the Chairman, nothing was accomplished. A canvass of the committee showed a decided majority in favor of these measures, but some members object to raising the issue of taxing bogus wines at the present time, fearing to prolong the session by debate, inasmuch as the Oleomargarine bill is sure to come up. Several of the Finance Committee would favor the perfection of the law taxing bogus wines, but are opposed to the oleomargarine tax, hence they fear the conflict of ideas. Eastern wine growers have appealed to their Senators for support of the wine bill taxing spurious articles, and are indifferent on the subject of free spirits for sweet wines. It is quite probable that the result of these minor complications will compel the bills to be divided, and that the provisions relating to spurious wine may be forced to stand alone and await action next winter. The indications now are not favorable to speedy success with the free fortification measure. Meanwhile no ground has been lost in the contest to protect pure wines. As soon as the Tariff bill is really out of the way in the House, the report from the Ways and Means Committee may place the Wine bill on the calendar ready for action next winter. The situation in the Senate may also change for the better, as the pressure on the petitions from Eastern wine growers is left. The Committee of the Medical Society of the District of Columbia, formulated a brief address to Congress. The committee said:

The undersigned, acting as a committee appointed by the Medical Society of the District of Columbia, do respectfully invite your attention to the widespread evils of the adulteration and falsification of the beverages sold as wines, both for daily, family and general uses. We are credibly informed that millions of gallons of spurious wines are annually sold for consumption in this country, and that practically the ordinary consumer and the physician's patients have no protection against the dishonest trade. This evil, so far as the medical profession is concerned, is in the nature of adulteration of medicine, in the preparation of which wines are necessarily employed, and with respect to the ordinary daily consumption, where wines are habitually used at the family table, the study of the public health and the causes of diseases are complicated by a want of exact knowledge as to the nature of the products consumed. It is known positively that wines are not only imitated by apparently simple methods, but are also adulterated with false and injurious coloring matters, low-grade alcohols and drugs. We are informed that there is a law which taxes imitation and adulterated wines, but which has not been enforced on account of some defects; also that bills are now pending in Congress having in view the perfection of this law. We desire respectfully to suggest that the public health and the interest of the medical profession may be in a great measure secured if Congress shall provide some effectual means by which these acknowledged sources of disease may be guarded against, thereby co-operating with and aiding those whose profession constitutes them the legitimate

custodians of public as well as individual sanitation, protecting both the sick and the well against so insidious and extensive an evil.

ALEX. T. P. GARNETT, M. D.
J. H. BUCKLEY, M. D.
THOMAS C. SMITH, M. D.

A very favorable impression has been created in favor of the quality of California wines through the judicious distribution of samples by the representatives of the California Grape Growers' Union. The wines were received in casks and bottled, altogether amounting to more than 4000 bottles. This part of the work being now completed, Mr. Pohndorff is contemplating remaining to establish a local agency for California wines. Mr. Wetmore says he is very anxious to return home, but cannot leave until definite results are obtained with the pending legislation.

WASHINGTON, June 21.—Senator Kenna of West Virginia to-day presented to the Senate the memorial of the Committee of the Medical Society of the District of Columbia, complaining of the widespread evil of the adulterations of wines, and asking for legislation to protect consumers and the medical profession against frauds which the public is now powerless to resist. The memorial was referred to the Finance Committee which has the subject under consideration. It is known that Senator Kenna is in cordial sympathy with the wine interest. Mr. Wetmore says that there are little hopes of getting in the Finance Committee a favorable report on the provisions of the Wine bill taxing spurious goods, at this time, although the Sub-Committee has agreed to the free fortification of sweet wines. The National Viticultural Association will, however, continue in other ways to urge the legislation to protect their market in this country against fraudulent practices.

WASHINGTON, June 25.—Senator Stanford has received assurance from thirty-five Senators that they will support his Spurious Wine bill. The committee will meet and report the bill favorably to the Senate. The passage of the bill is not questioned.

WASHINGTON, June 27.—A petition will be presented to the Senate to-morrow from the largest wine dealers in New York. The petition recites that the existing law, Section 3328 of the Revised Statutes, taxing imitation and spurious wines, has not been enforced for reasons which the officers of the Government may explain. It is generally understood that this law can be made operative by additional legislation and with such changes as Congress in its wisdom may decide to be proper. The enforcement of this law would prevent a loss of revenue to the Government, and would, by reason of the stamps affixed to the packages, benefit the public by enabling consumers and physicians to distinguish between pure and spurious wines.

Several kinds of wine are much used in case of illness, convalescence and failing health in old age. Such wines, when sweet, are necessarily strengthened by the addition of sufficient distilled spirits to preserve the saccharine matter contained in them from fermentation. The value of such wines is, therefore, dependent largely upon the kind of spirits used in fortifying them. In order that the best grape spirits may be utilized, instead of cheap alcohols for such purpose, facilities given to producers for the use of pure grape spirits would materially benefit all consumers, whether in health or disease. The petition is signed by thirty-five firms of wine dealers in New York City.

The Spurious Wine Bill.

(San Francisco Chronicle.)

The public regret to hear that there is danger of the bill taxing spurious wines being lost in Congress. It appears to be antagonized by the Oleomargarine bill. This is all wrong. The bill which is intended to protect the public from spurious wines, has the double purpose of helping an industry which is destined to prove an important national resource, and likewise of guarding the public health against a noxious article of consumption. The Oleomargarine bill is merely a scheme to help dairymen by driving out of the market a compound which, however nasty its constituent elements may be, appears to be harmless. There is no sort of danger that there will ever cease to be a demand for pure butter made from the milk of the cow. All the oleomargarine in the world will not drive good butter out of the market. But the dairymen appear to be frightened, and their representatives in Congress are fighting oleomargarine with an energy worthy of an honest cause.

We desire to warn Congressmen that the public are by no means satisfied with the performance of the long session of the Forty-ninth Congress. It has done too little. People feel that they haven't got the worth of their money. It has wasted nearly seven months in jaw and flapdoodle, and people feel that Congressmen for such work come high at \$5000 a year. Men are sent to Washington not to air their oratory, but to make laws, to cure abuses and effect reforms. Talk is always cheap, and there has been too much of it.

One would suppose that no one could object to the bill which has been introduced to check the sale of spurious wine. The bill, it would seem, ought to have been reported favorably after one session of the committee, and passed without a division. Who wants to protect the home industry of manufacturing wine from alcohol and acids? There are, of course, a few knaves who make a living at the fraudulent trade. Can it be possible that they have influence enough to retard the passage of a bill through Congress? If so, it is well that the facts should be known, and that the names of members whom they influence should be published. In these days every necessary reform clashes with some interest or other. If the makers of spurious wine are to be considered, why not the counterfeiters and road agents?

We hope that our delegation will work zealously to get this bill through. A little energy and a little parliamentary dexterity ought to accomplish the work. The people of this State will not be satisfied to have the bill thrown over to next session.

Fraudulent Formulae.

(New York Wine and Fruit Grower.)

Here is the formula for "Blackberry Brandy": Fifteen gallons of so-called Cherry Juice; five gallons of California Brandy; twenty gallons of Cologne Spirits, or any kind of Rum or Alcohol reduced to proof.

Formula for Claret (à la New Orleans): One gallon of water; one gallon of Cherry Juice, so called; one gallon of the cheapest California Red Wine that can be picked up in the whole State. If deficient in color add a small quantity of salicylic acid to the barrel, to keep it bright.

These are only mild formulae, and we could only guarantee slow death to the drinkers; but there are others that would discount "forty-rod whiskey," and take topers through by the "lightning express."

A WINE LICENSE.

(San Jose Times-Mercury.)

The following opinion has been filed by Judge Belden in the case of the People vs. A. Delmonly, on appeal from Justice Buckner's Court.

The defendant was prosecuted for a violation of the ordinance of the city of San Jose, which prohibits the sale of wines, etc., in quantities less than a quart without first procuring a city licence. He was duly convicted and sentenced to pay a fine of \$10, and in default of such payment to be imprisoned in the City Prison. From this judgment, upon questions of law alone, he now appeals to this Court.

The principal propositions urged for appellant are:

1. That the ordinance which does not except domestic products from the allegation to exhibit a license is in derogation of the State policy, it being contended that as the State, as to her licenses, and also as to licenses issued by the county, makes this exception, the cities of the State must make the same exception.

2. That the complaint charges two offenses.

3. That the finding of the Judge is not supported by the evidence, it appearing from the testimony that the parties helped themselves to the wine and left the price of it with a person upon premises without any apparent action on the part of defendant.

The first objection is fully considered and disposed of by the following decisions of our Supreme Court: Ex parte Ah Foy, 57 Cal., 92; People vs. Martin, 60 Cal., 153; Ex parte Stuart, 61 Cal., 374; Ex parte Walter, 65 Cal., 269; Ex parte Lawrence, May 25, 1886. The substance of these decisions is that the fact that the State introduces into one branch of her revenue or license laws certain exceptions or restrictions in no way affects the power of the city to deal with the same question and to impose taxes and exact licenses for the same business.

The second objection that there are two offenses charged admits of question. The ordinance reads: "All persons engaged in the business or who shall sell or dispose of any liquors, wines, beers, etc., without procuring a license," etc. The complaint in the charging words reads: "Said defendant was then and there engaged in the business of selling and did sell and dispose of," etc.

It is insisted upon argument that to engage in the business "or to sell" are maintainable upon wholly distinctive grounds and supported by different character of proof. This is perhaps so, and these conjunctive allegations are certainly trenching very closely upon prohibited ground. Is this objection so presented that it can now be taken advantage of?

The defendant in the first instance pleaded not guilty. He then by leave of Court withdrew this plea and filed a demurrer, assigning with other grounds that the complaint charged two separate offenses. The pleader did not, however, state what these offenses were, nor in any way indicate to the Court what were the offenses, or either of them, which were thus improperly united. In his notice of appeal and in the assignment of error in his statement upon appeal, the defendant does not assign the rulings of the Court upon the demurrer as the grounds relied on, unless the general statement that the rulings of the Court were excepted to may be taken as such assignment.

In my opinion the party who objects that two separate offenses are charged against him must state what are the offenses so charged, in order that the Court may compare the offenses so laid with the statute and see that two offenses created by the statute are really set forth in the information or complaint. The same rule applies as to assignment of errors relied upon on appeal. The respondent has a right to be informed in specific terms what are the errors that will be relied upon on appeal, in order that while the record shall be made full upon the ruling thus called in question, it shall not be made uselessly cumbersome by matters that are abandoned. In the present case every ruling made upon the trial by the Justice was as fully called in question by the notice of appeal and by this assignment as are the two or three propositions that are now insisted on. Without deciding as to whether this objection could have been well taken, I am of opinion that it is not so presented that it can be availed of.

It may be thought that this disposition of the point is somewhat technical, and a party cannot well complain that the rule which he invokes should be applied as well against as for him.

It is further objected that the parties helped themselves to this wine and paid for it without interference or solicitation upon the part of defendant. If this was the real fact of the case, of course the defendant should not have been convicted. Whether it was or not was for the Justice to determine, and his determination, if not conclusive, is entitled to great consideration. The artifices by which license laws and prohibition laws are sought to be evaded are numberless, and the device of a customer of waiting upon himself without apparent action upon the part of the proprietor was long ago relegated to the tomb of defunct subterfuges. I make no doubt that the Justice estimated this feature of the defense at its proper value.

The judgment appealed from is affirmed.

AMERICAN WINES.

[Address by Mr. G. Arnaud of Charlottesville, Va., before the National Viticultural Convention in Washington.]

Gentlemen: The American wines have met a great prejudice when first introduced in the American market. This is a strange fact, because we all know that Americans are generally very proud of their products. They are very apt to say that everything they have is the best in the world. I quite agree they are right very often, although I am a Frenchman. And yet when we speak of our American wines a good many bring immediately in opposition the imported wines. How is that? "*Il n'y a pas de fumet sans feu*," we say in France—there is no smoke without a fire, such a prejudice must have a cause.

What was the quality of the first American wines put on the market? How were they made? How old were they? Were they the pure juice of the grape; of a grape of good quality, sound and ripe? These questions suggest immediately the causes of the prejudice I have mentioned. The American grapes from which wines were made fifteen years ago were mostly Isabelas, Hartfords, and afterward Concord and Ives. They have been turned into wine before they were ripe. They had too much acids, not enough sugar. Acids were neutralized with marble dust, chalk plaster, lime, magnesia, and also diluted with water; glucose and sugar were added not only to

supply the deficiency, but to excess, producing a sort of cordial called port, sherry, etc. It is this stuff that has created the prejudice against which we are fighting now, and will have to fight again and again with the certitude of a glorious victory, if our fight is made in the right way.

The address made at the opening of the present session by the Hon. N. J. Colman, Commissioner of Agriculture, will have a great effect against that prejudice, and all the wine-growers have to tender him their thanks. But the grape and wine-growers have something else to do. Encouragement and compliments will not improve their wines; law will not do it; chemistry alone will not do it. They have to do away with neutralizing the acids, diluting them, adding glucose or sugar. Such process will not produce wines. I have been living more than forty years in the Medoc district of Bordeaux. I have been visiting Burgundy; nobody will deny that they produce there best clarets, and there diluting or neutralizing the acids and adding sugar are things not known. They confine themselves to the use of the grapes only for making claret wines. It seems to me that if we want to make good claret, we must look there for models, as for champagne we must look for the champagne district, and look at the process of Spain and Portugal for sherry and ports. And here I can not restrain myself from mentioning a fact which has been always inexplicable to me. In Europe every district is making one sort of wine only—here claret, there champagne, there sauternes, elsewhere sherry, and elsewhere port. In America most every vineyard with grapes, far from perfect, makes at will and at the same time claret, port, sherry, champagnes, sauternes. I can not understand that. Would it not be better for the American grape-grower to investigate what sort of wine his locality can produce, and then produce such a wine, as they do in France, Germany, Italy, Spain—everywhere. The same climate can not produce grapes fit to make claret and to make port or sherry. It will be one or the other, or you need to have recourse to artificial process.

What is to be done then? Investigate the soil and climate of each district where grapes are grown, and see by comparison with Europe what sort of wine can be made. Select the best varieties adapted to soil and climate. East of the Rocky mountains we have to give up the *Vitis Vinifera* or European vine. We have to leave this vine to our California brothers, they are more favored than we are; but we have good American varieties and we will improve them yet, and most of them are phylloxera proof, which is a sufficient compensation. Cultivate the grapes in as perfect a way as practicable. Learn by experiment how deep they must be planted, according to soil and climate; how far apart, according to variety and strength; how long they must be pruned in the winter; how much they can be pruned or punched in the summer; what quantity of crop each vine can produce. Of course, we have to combine all these points in view of obtaining from a given area of land the largest crop of the best quality. I ought to say quality first—quality is more important than quantity, but both must be the aim of the viticulturist. It seems that a vine can produce only a certain amount of saccharine matter, then if there are too many bunches, the saccharine matter is deficient in the fruit and the reduction of the number of bunches will increase the sugar.

Picking the fruit at the right time is also of great importance. In France, especially in sauternes, five regular pickings are made, taking each time from the vines the ripe bunches, and sometimes the ripe berries only. For white wines the grapes are never too ripe in France, for red wines they must be ripe; but as the wines have to ferment with the skins and berries, skins and berries must be sound, and not have undergone any decomposition. The taste and the color of the wine will be very much injured by rotten berries.

I can not and do not want to describe the whole process of making claret wines; it will take too much of your time, and that has been done already by experienced wine-makers. I insist only on that point, that for making good claret I advise to take our models in the Medoc. Have our grapes as perfect as possible, from twenty to twenty-two per cent. of sugar, and seven thousandths of acids. Use nothing but sound grapes. Stem them if practicable, have vats perfectly clean and sweet, put the grapes in the vats as soon as possible after they are gathered; keep the berries, and skins, and all the pomace completely immersed in the must; watch carefully the fermentation, and draw the wine in casks at the proper time. Here I will advise specially the size of casks used in the Medoc and in Burgundy, sixty gallons in the first place, fifty in the latter. The size of casks, the wood they are made of to be new or old, are matters of great importance for the future quality of the wine.

Wine is not injured by being drawn from the vats in new casks; on the contrary it is benefited, but when old. If you draw it in new casks, in whisky barrels, in any cask except a cask which has contained wine already, you injure it to such an extent that the use of trade, in Bordeaux, gives to the purchaser the right of refusing an old wine delivered after it had recently been put in a new cask. When the wine is in casks, have a good cellar, keep the casks always full, filling at least every week, rack off the wine in due time, let it be at least two years old, and then you can place it on the market and you will see the prejudice against it give way, and our American wines will be appreciated by the most fastidious connoisseurs.

I speak of claret only because it is the only wine I have seen made in the Medoc district, where I have been living a long time, and I think it is the only wine I can make where I live now, in Virginia.

Room for a New Industry.

It is a notorious fact that the wine merchants of this city consume between four and six thousand dollars worth of tulle covers for packing wine bottles. This, in addition to the enormous consumption of the numerous wineries, would swell the consumption of this one article manufactured in San Francisco to twenty or twenty-five thousand dollars worth annually. These covers for wine bottles are brought here from San Francisco at a cost of from twelve to fifteen dollars per thousand, which could be made here at a profit of four or five dollars per thousand, and at the same time give profitable employment to a great many people who would jump at the opportunity to make an honest penny. There is tulle enough in the valley between the foothills and the sea to manufacture this tulle packing for all the wine bottles that will be put up in the next fifty years, and all that is necessary to make it pay is the outlay of some two hundred dollars to start a profitable and lasting industry.—*Los Angeles Herald.*

THE NATIONAL VITICULTURAL CONVENTION.

(New York Wine and Fruit Grower.)

The National Viticultural Convention has come and gone since our last issue, and a great step forward has been taken in American Viticulture. As announced, the Convention met at the Agricultural Department buildings on the 18th of May, and remained in session four days. A permanent organization was effected the first day, and the Association will hereafter be known as the National Viticultural Association of the United States.

Mr. Charles A. Wetmore of California was elected President, and the Editor of this paper Secretary, for the first year. Mr. Wetmore needs no introduction here. He is known and recognized as pre-eminent the most able viticulturist connected with this interest in the United States. He is not only well posted in the science and technology of the business, but his ideas and views are broad and statesmanlike in a general way, which enables him to form a clear conception of the wants and needs of the industry as a whole. Every grape grower in the country is better off to-day by reason of his leadership in the Association just formed, and all will realize this fact before the assembling of the next Convention.

As to the Secretary, we will simply say that he will try to do his duty, and will give the Association loyal and hearty service.

The great central feature of this organization is the Viticultural Council of fifteen. A study of the By-laws will show that this is a very powerful body, having a wide range of duties, and power to initiate and execute such measures as it may deem needful for the protection of the interests of viticulture. A glance at the names of the members will satisfy any one familiar with the history of the industry in the United States, that the Council is an aggressive, positive force, organized for work, and not for ornamental purposes. This Council is made up of representatives from twelve different States. The following is the list of members: J. S. Newman, Auburn, Ala.; L. J. Rose, San Gabriel, Cal.; H. W. Crabb, Oakville, Cal.; Bennett H. Young, Louisville, Ky.; George W. Campbell, Delaware, Ohio; D. G. Cook, St. Louis, Mo.; Hon. Wharton J. Green, Fayetteville, N. C.; Alexander W. Pearson, Vineland, N. J.; D. Bauder, Rhineins, N. Y.; George E. Dewey, New York city; J. W. Davis, Urbana, N. Y.; J. J. Lucas, Society Hill, S. C.; M. O. Randall, Nashville, Tenn.; T. V. Munson, Denison, Texas; H. L. Lyman, Charlottesville, Va.

It will be seen, first, that each district which is recognized as a grape growing center, is represented in this council; second, that interest in dollars and cents is also recognized; and, third, that the practical learning, the science and technology, so far as developed in this country, are given due consideration. Each of these gentlemen will be fully informed as to the purposes of the Association, and will constitute a center around which all who are honestly and earnestly devoted to this industry may gather for consultation and mutual interchange of experiences. In short, the Council will doubtless become a high practical and scientific school for the study of every great question relating to the industry of viticulture in the United States.

Its chief function, however, will be to deal with questions of public policy affect-

ing the industry, such as legislation for its protection and preservation, and to guard against hostile and unfriendly action, whether prompted by fanaticism or the greed of competing interests.

It is expected that as soon as membership is duly increased, and a sufficient fund collected, a literary department or bureau, will be established, from which will issue circulars, pamphlets, books, etc., which will be distributed free to members, relating to every fact that is of importance and of general interest. This feature will render membership desirable, if not indispensable, to every grape grower of any importance who has any care to keep abreast of the progressive march of viticultural events.

Those who contemplate joining the Association should appreciate and understand certain fundamental facts that underlie membership. No person should join it who is not a grape grower, or a wine maker or a distiller of brandy from wine made from grapes grown in the United States. No person should join who is too narrow in his or her views to approve of the proper use of grapes, such as is recognized as legitimate by all civilized nations: hence no Mohammedans nor Prohibitionists would be eligible. No person who is engaged in making wine by artificially compounding substances other than grape juice, or in adulterating grape wines or stretching wines or brandies by the use of material not derived from grapes, or who in any way produces so-called wines or brandies in a way that is calculated to do away with the honest and legitimate use of grapes, should be permitted to join. If any such persons should join, they would without doubt be dropped as soon as the facts of their business were known. No one should join the Association whose leanings or material interests would prevent him or her from being—or who is not in act—loyal to the best interests of viticulture in all its relations, and in every phase in which it may be considered. No army is ever benefitted by spies and traitors; it is better to have a small and compact body of loyal and faithful friends, than a large one of mixed friends and enemies and cranks. What is needed in the membership, therefore, is loyalty, honesty and earnest purpose. It is only through the practice of these virtues that we can maintain the purity and high character of our vineyard products, and appeal with clear consciences to a trustful and discriminating public confidence.

The officers and the members of the Council appeal to all grape growers, who can fill these conditions, to become members, which may be done by writing or personal application to the Secretary, stating the relations of the applicant to the business, whether grape grower, wine maker or distiller, and enclosing ten dollars for one year's dues. The By-laws are ready to sign, and a considerable number have already signed the roll of membership.

REPORT OF COMMITTEE ON ORGANIZATION.

At a meeting of grape growers and others connected with other American wine interests, held in New York city on the 3rd of February last, to consider the needs of the vine growers specially with reference to legislation to protect the industry from the injurious consequences of the imitation and falsification of vineyard products, and to maintain the high standard for purity heretofore accorded to these products, it was resolved as the sense of the meeting that a national association of those concerned in

the cultivation of the vine and the preparation of its fruit for market should be formed, not only for the purpose of protecting the industry from the danger referred to, but to promote its development and growth by the dissemination of knowledge relating to the science and practice of viticulture as a calling, and widening and extending the area of markets.

Pursuant to that idea the undersigned were then and there appointed a Committee, with power to call a Convention and arrange for the organization of an association at Washington, D. C., in May. After great effort and extensive correspondence and consultation with a great number of persons connected with viticulture in its various relations, the Convention has been called, and is now assembled, and in obedience to the instructions this Committee begs leave to submit for its consideration the following preamble and resolutions and plan of organization, to wit:

WHEREAS, The experiences and investigations of American horticulturists during the past half century have demonstrated the adaptability of the soil and climate in many districts in the United States to the cultivation of the grape; and

WHEREAS, The results of such experiences and investigations point to the conclusion that there are many thousands of acres in nearly every State and Territory, amounting to many millions of acres in some of them, that are in an eminent degree suitable for grape growing; and

WHEREAS, The cultivation of the grape in all ages has been an honorable and elevated calling, and has always been fostered and encouraged by all civilized nations, and has been approved of and carried on by the most noble and eminent men of ancient and modern times, as well as by the humblest; and

WHEREAS, The use of the grape and its products as food or beverages is known to be healthful and beneficial to man, and capable of aiding his moral and physical development, so much so as to entitle it to be justly considered an important factor in our national progress and prosperity; and

WHEREAS, In view of all these facts of commanding importance in themselves, and the further facts that many thousand families in the United States are now engaged in grape culture as an occupation, and that over \$100,000,000 of capital is now invested in it as an industry, and that the same is now rapidly increasing, so much so as to fairly claim recognition as a national industry; now

Therefore, To the end that the people of these United States may reap the full benefit of the facts and conditions herein portrayed, and avail themselves to the fullest extent to advance national and individual honor and profit; that this noble industry may be developed upon a scale commensurate with the magnificent advantages offered and elevated, protected and preserved from contaminating influences and misdirection through dishonesty or ignorance; that the great shield of the Government may be thrown between it and harmful influences; be it

Resolved, That the grape growers and wine makers of the United States represented in this Convention do now organize a permanent association, and that such association shall be hereafter known as the National Viticultural Association of the United States.

Resolved, That the said Association, through its officers and committees herein-

after provided, shall hold annual conventions and expositions at such time and place as may be agreed upon by the properly constituted authority, for the purpose of discussing questions relating to grape culture, wine making and the conversion of the fruit of the vine into food products; for the consideration of laws necessary to protect and uphold these several interests as parts of a great national industry; for the consideration of measures necessary to maintain the highest standard of quality in all vineyard products, and to detect and expose all attempts and methods employed to adulterate or imitate the true products of American vineyards, and such other questions as may be properly brought before it.

We recommend the following plan of organization to the Convention, and that the same be adopted as the Constitution and By-laws for the government of the Association for the first year or until the assembling of the next annual Convention, viz.:

First: Membership—Any person engaged in growing grapes for any purpose, or making wine from grapes, or distilling brandy from wine made from grapes grown in the United States, and who shall pay into the treasury of the Association the sum of \$10 as annual dues, and who shall subscribe to the Constitution and By-laws, shall be a member for one year.

Second: Officers shall consist, first, of a president, whose duty it shall be to preside at all annual or national conventions, and shall be *ex officio* chairman and member of the Viticultural Council, as hereinafter provided, and member of all sub-committees, and shall sign reports of proceedings of conventions and such other papers and documents as may require his official signature; second, a secretary, whose duty it shall be to make a record of the proceedings of all conventions held by the Association or the Viticultural Council and prepare the same for publication. The secretary shall be a member of and *ex officio* secretary of the Viticultural Council, as hereinafter provided.

Third: There shall be a Viticultural Council of fifteen, in addition to the president and secretary, selected from the country at large, and with reference to their familiarity with the whole range of subjects relating to viticulture and its kindred industries. The several members of this Council shall be invested with powers and duties of vice-presidents, and may preside at any national convention or meeting of the Council in the absence of the president. This Council shall have the power to call national conventions, fix time and place for holding the same, define and declare qualifications of delegates and methods of electing the same, and form of credential. The discussions and proceedings of the Council shall be in executive session, and such communications as they may send out to members of the Association shall be considered privileged communications unless otherwise designated by order of the Council. All executive work and resolutions and matters acted upon in national or local convention called under and by authority of this Council, and questions of public policy relating to the interests of viticulture, shall be referred to the Council for final action. The Council shall have power to collect funds, make disbursements, and shall appoint such sub-committees, agents and lecturers as it may deem necessary.

The Council shall determine the number of stated and regular meetings of its own body, notice of which shall be given to members of the Council one month in advance, and special meetings may be called by the president upon the request of five members, stating the object of the meeting, and at such meeting no final action shall be taken except upon the subject mentioned in the call.

It shall also be the duty of the several members of said Council to collect statistics and gather facts of interest to viticulturists in their respective districts, and to furnish the same to the president from time to time for the information and guidance of the said Council, and such information and facts may become part of the published reports and papers issued by the Council through the president and secretary, and it shall also be the duty of said Council to publish from time to time such papers, bulletins &c., as may be deemed of sufficient interest to viticulturists for the benefit of all concerned.

The Council shall have power after consultation with those interested in the industry which it represents, to adopt such measures in behalf of viticultural interests, and to protect the same against any dangers that may suddenly arise, as in their best judgment may seem necessary and expedient, and especially to make known the wants of this industry to legislative and executive bodies, both State and national.

The Council shall, during the first year and before the assembling of the next annual convention of the Association, revise the Constitution and By-laws and submit the same for approval of the Association at such convention. No person not a proprietary grape-grower, or wine-maker, or distiller of grape-brandy, is eligible to serve on this Council, and if at any time any member should cease to be identified with the industry in one or another of these branches, his place shall be filled by the Council at its next regular meeting.

B. F. CLAYTON, Florida,
A. J. SWITZER, New York,
C. G. FRASH, Virginia,
A. RUSSOW, Virginia,
F. POHNDOFF, California,
HON. WHARTON J. GREEN, North Carolina,
D. G. COOK, Missouri.

ANOTHER LIAR LOOSE.

A party by the name of Brown, who signs himself Ex-Special Treasury Agent, has published a pamphlet recommending the abrogation of the Hawaiian Treaty. Besides the usual misrepresentations and falsifications that are repeated over and over again by those who are so sorely exercised over any prosperity pertaining to the Pacific Coast, we find the following remarkable statement. Thus:

"This writer was recently informed by an ex-member of King Kalakaua's Cabinet that he had seen Canton and Philippine Island Sugars in wats transferred from vessels at the Hawaiian Islands, without landing, to schooners which, when thus loaded, cleared for San Francisco."

The lovely liar who made the above statement has evidently met with his deserts in being deprived of his Cabinet office. It is about the most false statement that we have ever seen or heard of in regard to the Treaty. But there is source for congratulation in it too. And that is that the present Cabinet of His Majesty is not composed of such men as formerly held the reins of government, and who do not, as Ex-Special Treasury Agent Brown says, "savor of missionary intrigue throughout."



ISSUED FORTNIGHTLY ON FRIDAY MORNING BY

E. C. HUGHES & Co., - - Proprietors.
CHARLES R. BUCKLAND, - - - Editor.

Office, 511 Sansome street, Postoffice Box, 2366

TERMS—PAYABLE IN ADVANCE.

One copy one year.....\$3 00
One copy six months.....1 75
Including city delivery, United States, or Canadian
Postage.

Entered at the Postoffice as second class matter

AGENTS.

ANAHEIM.....MAX NEBELUNG
CLIVERDALE, Sonoma Co.....J. A. CARRIE
DIXON, Solano Co.....A. R. STORM
DUNCAN'S MILLS, Sonoma Co.....C. F. SLOAN
FRESNO.....H. C. WARNER,
Golden Rule Bazaar
GEYSERVILLE, Sonoma Co.....D. LEPU
HEALDSBURG, Sonoma Co.....A. RALTZELL
LIVERMORE, Alameda Co.....GEO. BEY
MAXWELL, Colusa Co.....R. M. NATHAN
SANTA ANA.....C. F. CHITTEN
SAN JOSE, Santa Clara Co.....E. B. LEWIS
SANTA ROSA.....C. A. WRIGHT
STOCKTON.....WM. H. ROBINSON
WINDSOR, Sonoma Co.....LINDSAY & WELCH
WOODLAND, Yolo Co.....E. BERG
HONOLULU.....J. M. OAT, Jr. & Co

FRIDAY.....JULY 2, 1886

Recognition

Our friends in the Fresno Viticultural and Horticultural Association recognize the value of a journal like the MERCHANT guarding and advancing their interests, and give effect to their good wishes in a very practical way, as will be seen by the following resolution:

Official.

FRESNO, CAL., April 5, 1884.

Proprietor S. F. MERCHANT.—Dear Sir: Below is a copy of the minutes of the last meeting of the Fresno Viticultural and Horticultural Society that is of interest to yourself.

Resolved—That this Association recognize the SAN FRANCISCO MERCHANT as one of the best organs of the Viticultural and Horticultural interests in the State, an exponent of their views and able advocate of their interests, and, moreover, as a paper which has taken more than ordinary interest in the prosperity of Fresno county. We agree to give the publisher our liberal support while that journal pursues the course for which it has hitherto been distinguished. Moreover, we signify that manufacturers and dealers in agricultural implements and other merchandise who wish to call our attention to their goods, and us and other Viticulturists in maintaining the SAN FRANCISCO MERCHANT on a sound footing, by giving it a large share of their advertising patronage.

Be it further resolved that the Fresno Viticultural and Horticultural Society tender its thanks to the SAN FRANCISCO MERCHANT for past favors.

C. F. RIGGS, SECRETARY.

SMOKING VINES.

A correspondent writing to the MERCHANT states that he proposes to use Naphthaline or Naptha oil, or the oil produced by the distillation of coal in the gas works for protecting his vines against frost. The cost of such smoking is estimated, according to French authorities, at 90 cents per hectare, including wages, and ten metallic bowls would be required for each hectare. These oils, contained in forty bowls, were lighted at the same time, heaps of rubbish and weeds being piled on top of them. They produced a great quantity of thick, black smoke, which, after first rising upwards, descended and completely protected the vines. A light breeze extended the drift of the smoke, and the forty bowls, each containing two pounds of oil, completely covered 6 hectares of vines. The weeds and rubbish produced a thick, white smoke which ascended too rapidly and was not so beneficial as the oil smoke. A combination of the two, however, was very effective. Another French remedy is to whiten the vines with lime milk, but smoke is generally conceded to be the best and safest protection from frost.

WINE SHIPMENTS.

The receipt of the returns of the overland shipments of California wines enables us to give our total export trade for the first four months of this year and to compare it with the same period in 1885. Although the overland shipments in April were not nearly as large as those in March yet they almost doubled the output during the same month last year. The sea shipments, on the other hand, were nearly one-half less than in the corresponding period of 1885. The total for April 1886, however, amounts to nearly 650,000 gallons of wine exported as against nearly 400,000 during April, 1885, showing an increase of nearly 250,000 gallons in the one month's trade for this year. The figures for April are as follows:

BY RAIL—APRIL 1886.

From—	Gallons.
San Francisco.....	137,411
Los Angeles.....	118,911
Sacramento.....	32,501
San Jose.....	3,527
Stockton.....	1,394
Marysville.....	72
Total.....	593,846
April 1885.....	305,817
Increase, April 1886.....	288,029

BY SEA—APRIL 1886.

Route—	Gallons	Value.
Panama Route.....	13,098	\$21,142
Miscellaneous Routes.....	11,349	9,430
April 1885.....	54,447	\$30,572
.....	91,229	50,392
Decrease, April 1886.....	36,782	\$18,820

The exhibit for the four months of this year is a remarkable one, showing an increase in our wine exports of 1,300,000 gallons as compared with the first four months of last year. Then the business transacted exceeded that of former years and was considered somewhat remarkable. But this has been eclipsed by the showing for the present year. The decrease in the sea trade continues and is due entirely to the falling off in the Panama steamer shipments, other sea shipments continuing to show an increase. However, the figures may speak for themselves. Thus:

WINE EXPORTS—FOUR MONTHS 1886.

	By Rail.	Panama Steamers.	Other Sea Routes.
First quarter..	1,736,603	173,616	53,291
April.....	593,846	43,098	11,349
4 months 1885	2,330,449	216,714	64,640
.....	1,087,370	374,235	191,890
Total, 4 months 1886.....	2,611,803		
Total, 4 months 1885.....	1,481,495		
Increase, 4 months 1886.....	1,130,308		

It is extremely probable that Mr. F. Pohndorff will remain permanently in Washington. We hear that one of our best and prominent Winemakers, who resides in Napa County, has made arrangements with Mr. Pohndorff to remain in the East for the purpose of opening up a trade in California Wines of the highest quality. We sincerely regret the loss to this State that will occur through Mr. Pohndorff's absence, but congratulate the gentleman whom he will represent, upon having secured the services of so thoroughly competent, reliable and energetic an agent. Mr. Pohndorff is also to be congratulated upon having at his disposition the handling of such wines as those of Mr. H. W. Crabbe, of Oakville.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

THE GRAPE CROP.

As has frequently been the custom, we find that our grape-growers are somewhat reticent concerning their crop prospects, and the wine-makers concerning the prices they propose to offer for grapes. Estimates of a production of from twenty to thirty million gallons of wine have been talked about, but there is still considerable uncertainty as to the probable total, though it will certainly be larger than that of last year. About four or five weeks ago there was some exceedingly hot weather in the country which has left its mark. Culture, that caused so great a percentage of loss last year, has again appeared to the serious detriment of the grape crop. In some districts we learn of the berries dropping off or ceasing their growth, while others on the same bunch are becoming fully developed. If we could gain more general information we should be in a better position to judge of the value of grapes. Growers should remember that stocks of wine on hand are very small, and that prices should range much higher than they did last year. The amount exported has far exceeded any other similar period in the history of the wine trade, consequently city cellars must be tolerably empty and will need replenishing to a considerable extent.

Concerning the grape crop in the Livermore Valley, the *Livermore Herald* says: "In this Valley, the Muscat, Golden Chasselas, Zinfandel, and Reislings seem so far, most affected, while the Petit Pinot, Columbar, and a number of other varieties, have received no injury whatever. Where the loss has been small, the berries will close up on the bunch, and grow enough larger to make up therefor; but it is certain that fully one-half of our vines, and probably a larger proportion, have lost a material portion of their crop from this cause; and the total loss will make a material difference in the grape crop of this Valley. Estimates are now dropping, and the 5,000 tons of the most enthusiastic, of two weeks ago, have now shrunk to 3,000, while as low as 2,000 is now contended for by the more conservative of our growers."

On the other hand, the *Orange Tribune* says: "The grape crop promises to be an extraordinary one this year. Every vine is loaded to its utmost capacity, and the bunches and berries are large and fine. We have heard no complaints of blight or mildew, and the season is now so far advanced that no fears are entertained of trouble of any kind. Orange will reap a rich harvest from her Muscats this year."

A full report of the proceedings of the National Viticultural Convention recently held in Washington, will be published in pamphlet form. It will contain all the papers read before the Convention as well as the remarks of the various speakers. The price of the report is one dollar, and copies can be obtained from B. F. Clayton, Secretary to the National Association and Editor of the *New York Wine and Fruit Grower*.

Attention is drawn to the decision of Judge Belden, published in this issue, relative to the necessity for procuring a license for the sale of wines in quantities of less than a quart.

The result of the investigation into the recent accident on the Mariposa shows the cause to have been a most unusual one in engineering experience. Unfortunately as the occurrence was, it is gratifying to know that no possible blame can be attached to the owners or officers of the steamer.

Proceedings of the Fruit and Vegetable Growers Association of the United States.

The Fruit and Vegetable Growers Association of the United States met at the Neil House, Columbus, Ohio, June 17, 1886. The meeting was one of unusual interest. The various papers read all embodied deep thought and research. The most interesting discussions were on the value and use of fruits, and regarding the best methods of preparing fruit for market and preserving it for family use. The opinion seemed prevalent that evaporated fruit was bound to obtain and hold the highest position in public favor. Not only is evaporated fruit superior in appearance, in flavor, in healthfulness and in keeping properties, but it commands a much higher price; ordinary dried apples are worth from two to two and a half cents per pound, evaporated apples from eight to ten cents. Common dried peaches are worth from three to five cents, evaporated from eighteen to twenty cents. Ezra Arnold, the Illinois fruit grower, presented drawings and specifications of a cheap evaporator made and used by him.

If with which he has had better success than with the more expensive dry houses and evaporators. He evaporated apples in two hours, strawberries in three hours, peaches in two hours, cherries in two hours, corn in two hours, and all kinds of fruits proportionately quick. The evaporator is a marvel of simplicity and excellence, and can be made by any one at a very trifling cost. By its use millions of dollars can be saved the producer and consumer each year. There are thousands of families that dry large quantities of fruit annually in the old fashioned slow way, and sell it at the old fashioned low price, when they could with but little expense make an evaporator and evaporate five times as much fruit and sell it for five times as much per pound. There are thousands of families in the cities that can at times, when the market is glutted, buy fruit for less than the cost of production, and with an evaporator can prepare in a few days sufficient fruit for a year's consumption, and at one-tenth the usual expenditure. Mr. Arnold said he did not intend to make or sell evaporators and would consign to the Association his right and title to his evaporators, provided the Association would procure cuts to illustrate the different parts and distribute gratuitously among the farmers, fruit raisers and consumers of the United States, complete illustrated directions for making and using this evaporator. On motion Mr. Arnold's proposition was accepted, and the following resolution adopted:

Resolved, That the secretary of the Fruit and Vegetable Growers Association be authorized to inform the people through the leading newspapers in each State, that illustrated directions for making and using Arnold's fruit evaporator can be obtained by addressing our secretary, W. Orlando Smith, P. O. Box 104, Alliance, Ohio; enclosing stamps for return postage, and that the secretary draw on the treasurer for the necessary amount to defray expense of wood cuts, printing, etc. On motion a vote of thanks was tendered Mr. Arnold for his valuable gift to the Association. On motion a vote of thanks was tendered the press throughout the country at large for the courtesies extended to us in publishing the call for the meeting of our Association, and for publishing the proceedings of our previous meetings. On motion the Association adjourned to meet at the Southern Hotel, St. Louis, Mo., Dec. 9, 1886, at 10 A. M.

W. ORLANDO SMITH,
Secretary.

THE BOYCOTT BUSINESS.

We regret heartily that the element of disturbance among the laboring classes has extended to California. At first the boycott in this State was merely confined to the Chinese, but it is doubtful even now whether much real benefit has been derived from the course adopted. The first enthusiasm on the subject seems to have died out and but little is now heard of boycotting in the country districts. It is there that its rigid enforcement would have been most severely felt. The State is peopled with farmers and settlers who are gradually establishing themselves on a sound basis after years of hard work and no little trouble or worry caused by the uncertainty of their crops and market fluctuations. What money they have made in one year may have been lost in the next, or it has been expended in cultivating an extended area of their land. By a large majority our country friends are not over-burdened with wealth. We hope they will become rich and prosperous in the future and so reap the reward that their labors deserve. Rich and independent agriculturists are the exception in California. Many are comfortably situated, but few are wealthy.

When men begin to make homes for themselves they are generally compelled to work hard and economically. They naturally look for as cheap labor as possible, quality being also considered, just the same as any business man does in his manufacturing enterprises. The labor best adapted hitherto for some kinds of farm work has been Chinese labor. It was cheaper than white labor and more reliable. It is a well-known fact that the Chinese excel in the picking and packing of all kinds of fruit. They can be obtained when required and they are faithful and reliable workers. They create no disturbance and do not "go off" for a few days after receiving any wages, so leaving their employer and his crops entirely at their mercy with a possible result of considerable loss. That white men have done this, time and time again, is well known to every farmer in the State. The best and most reliable white labor cannot be secured for such work because it is only temporary employment and the best workmen prefer a permanent job at a somewhat smaller average rate of pay than to be disengaged and out of work for half the year. As we have said, many of the white field laborers are not of the most desirable class and are unreliable. Were it otherwise then they would have no difficulty in supplanting the Chinese, and the employers would give them the preference. As it is the employer must look to his own interests. He must know that he can be in a position to gather his crops just when necessary, and he is compelled, in these times of low prices for our products, to get his work done as cheaply as possible. There is not now enough good white field labor to supplant the Chinese, consequently, however much it may be desired, the attempt to coerce the farmers into dispensing with their Chinese help must fail. The men who propose this and are the leaders of the movement have so far failed to supply a remedy. It is easy to talk about and order a boycott, but their collective brains cannot show any decided method of improvement that is judicious or fair, neither can they enforce the boycott that is easy enough to order.

So much for the country boycott. It has hitherto proved ineffectual and has every

prospect of continuing so. Let us now look at the condition of things in the city. The first movement of any extent was in the cigar makers' fight. The manufacturers generally showed a willingness to give the preference to white labor and tried the experiment. Hundreds of men came here from the East to fill the places formerly occupied by the Chinese. After several months' trial the experiment has not proved to be a general success. Complaints are made that the white labor is too expensive to enable the manufacturer to compete with other goods in the market. This can be very easily understood. The retailers will buy their goods in the cheapest market and the average smoker does not care a jot whether his cigar comes from a box with a blue, white, green or yellow label on it, so long as it suits his purse and his taste. The Unions in California, as they at present exist, cannot control the public. The cigar manufacturers have tried the experiment, and, if they find that they are losing money, they will naturally close their works. They are not going to ruin themselves entirely for any number of cigar makers. If the public do not support them and patronize their goods at higher prices than they have no alternative but to shut down. It is no use the cigar makers kicking at the manufacturers; they should kick the consumers into line, if they can. But the trouble is the consumer won't be kicked. His money is good, it is his own and he has the right to spend it where and how he pleases. He knows that it will always command the article that he wants, and that there will always be dealers willing and glad to supply his requirements. The cigar boycott has, so far, been unsuccessful. There are many of the Eastern men at present out of work here through the closing of at least one establishment. Others may follow and the Eastern men will wish that they had remained at home. The Cigar Makers' Union must first control the purchasing public before they attempt to dictate to the manufacturers, and this they cannot do. The result will be the closing of factories and the loss of work to hundreds of men.

Other prominent boycotts in this city have been those against the Union Iron Works and the Spreckels Brothers shipping business. In the former case it has been claimed that non-union men were employed, and in the latter the trouble arose from two or three insubordinate men on the steamer Mariposa, whose own actions in getting drunk and leaving the vessel in Sydney, on the eve of her departure, showed that they were unreliable and untrustworthy, and had no interest in the business of their employers. Every man, no matter what his position, should be interested in and endeavor to promote the welfare of his employer. He is himself directly interested in such success. If employers fail to succeed, then the labor is not required. A wise employer would never retain in his service a man who neglects or takes no interest in his business. He has no use for such a man and is far better off without him. There is not and cannot be any possible objection to men forming Unions if they desire to do so. The employers do not interfere with them or attempt to prevent their action. On the other hand the Unions have no right to interfere with or attempt to dictate to the employer in the conduct of his affairs. In this country the employers are mainly men who have worked their way upwards by honest labor, and the laborers of to-day would do well to follow and profit by their good ex-

amples. Any attempt made to force a business man who has any semblance of grit in him will result disastrously. He will not be dictated to and in fact he knows or should know how to conduct his business to the best advantage, and he has as perfect a right to act as he thinks best just as much as the laborer has to join any Union. If a laborer does not want to work for an employer he is not compelled to do so. He can please himself and the employer should also be at perfect liberty to act independently on his part. In the case of the strike against the Spreckels, the men, while decrying Chinese labor, have merely made an opening for it. If they do not care to work for the Spreckels, then this firm is not going out of business to please the malcontents. They have always shown a disposition to employ white labor and have always given it the preference. The white labor withdraws from their steamers consequently it is replaced by the next available. We believe that there are other steamers on which Chinese labor is employed, but we have heard of no boycott against them. The Unions should be consistent in their undertakings.

To come down to solid reasoning, let us consider what this boycotting means. It is an attempt made by a few men to coerce those upon whom they are dependent for their living into acts with which they have no earthly right to interfere. We say a few men, and we say so advisedly because the men who strike are not all at heart of the same opinion as the few leaders. They are asked to join the Union and do so in a soft moment because they have been asked, and because they see others do it. The few leaders are on the look-out for trouble and seize upon any real or fancied grievance to make trouble. Some of them are paid for their services, and consequently the longer the Unions last the better it is for them. They order the members out, and the members, because they are members, leave their work. In nine cases out of ten they have no individual reason for doing so and have no cause of complaint. Yet they are stupid enough to obey the orders of some fools, and so deprive themselves, their wives and children of any means of support. A few have sense and courage enough to reason for themselves and to refuse to obey the orders. They prefer to stick to a good job and leave the Union. As a rule, labor unions do not support all their members who are out of work, it is often enough for them to support their leaders who create the trouble. We have heard union men regretting the loss of their work, and, upon being reasoned with and told they were "cutting off their noses to spite their faces," they acknowledged that "every word was Gospel truth," to quote one man, "but the Union had ordered it." This man knew that he had to keep a wife and family, yet, for their sake, he stuck to his Union which had practically ordered him not to support them. This was one of the men who left the "Zealandia" last week. There are no better employers than the Spreckels family. None more just and none more honorable. They will always remedy any real grievance, but they will not be dictated to, and they are right. Through the action of the Unions, room has been made on the steamers of the Oceanic Company for Chinese labor which was not formerly employed there. As the white men have deserted the Company and tried to damage its business, can any of the strikers reasonably expect to be ever again employed by this firm? This boycott can-

not possibly be successful. To be thorough and complete, it would embrace almost every business house in the city. We venture to predict that there will never be any strike or boycott at the California Sugar Refinery which is owned by the same gentlemen. There the hundreds of laborers who are employed, and who have been for years, have no sympathy with any such movement. Yet they have a Union of their own, but it is a very different kind of affair. It is an institution that might well be imitated in all other large factories. It is a bond that unites the men. It is an honorable Union to which every man who wishes, contributes a small share of his monthly wages for mutual assistance in case of the sickness or death of any of its members. It provides help for the family who would otherwise be deprived of the necessary means of subsistence. The little contribution is gladly given because each member knows its value. It would be difficult to cause a strike among such a body of men. They know too well the true meaning of the word Union.

This is the sort of feeling we should like to see more generally extended. The men would find themselves more respected, better treated and in a better worldly condition. There would be less inclination to strife and more good feeling and respect between the employer and employee. A good workman should always have the courage of his own convictions and not be led away into foolishness because of the actions or opinions of Dick, Tom and Harry, or because of the blatant howlings of irresponsible malcontents and demagogues.

RAISIN EXPORTS.

The exports of California raisins by rail during the month of April, show an increase as compared with the same month last year. The total output for the first four months is also in favor of 1886, as might have been expected from the increase in the crop. The figures are as follow:

APRIL 1886.	
FROM.	POUNDS.
Los Angeles	151,400
Colton	23,360
San Francisco	16,970
April 1885	191,730
April 1886	69,400
Increase, April 1886	122,330

FOUR MONTHS TRADE.	
Four months, 1886	1,231,949 lbs.
" " 1885	806,070 "
Increase, 4 months, 1886	425,879 "

The first shipments of last year's raisin pack were made in September. The largest shipments of the pack were made in November, when the total amounted to 2,160,380 pounds. As there was considerable discussion concerning the quantity of raisins put up last year, we give, in detail, the exports per month by overland routes to Eastern points. To the end of April, this amounted to 6,750,489 pounds or over 300,000 boxes. To this should be added the amount exported by sea and the quantity used for home consumption. Stocks on hand at present are about the same as they were a year ago, consequently it may be safe to assume that last year's raisin crop exceeded 350,000 boxes. The shipments for the season stand thus:

MONTH.	POUNDS.
September	407,780
October	2,104,580
November	2,100,380
December	845,800
January	139,800
February	703,270
March	197,149
April	191,730
Total	6,750,489

LIFE HISTORY OF THE PHYLLOXERA.

[Prof. MacOwan, F. L. S., in the Wynberg Times.]

Next to the domestic fly, symbol of impudent persistence, and the lively flea, perhaps the best known insect is the Rose Aphid. Whoever has a garden, or even a plant or two in pots, knows the "Green Fly," and has lamented over its destructive agency upon roses and primulas. To get to know something about the now too celebrated phylloxera—please pronounce the *x* long, if you wish to be correctly classical,—it is well to begin with something we know and work from it to the unknown. Towards the end of summer one sees the twigs of the rose covered with aphides of the two sexes, easily distinguished by the gauzy wings which mostly decorate the males. This is the time when the females lay their eggs, fixing them upon the bark. In early spring, the time when the rose-blight causes most annoyance to the gardener, all these eggs come to maturity and give rise to a crop of females only. These reach maturity in about ten days, when they commence to give birth, by a sort of internal budding, to living young, producing about two daily for about sixteen to twenty days. After this the first generation dies. The young crowd as closely as possible round their mother, forming those strings and clusters of life which the gardener abhors. In about ten days they too become mature and as prolific as their predecessors, hence increasing quite as rapidly as the host-plant can form fresh leaves for them to occupy. As the cold weather advances, males as well as females are produced, and the season closes with deposit of a stock of fecundated eggs for the next season. It has been calculated that a single aphid may in one year become the progenitor of a quintillion of individuals. Of such numbers the mind can form no conception.

These aerial aphids transact their entire life-history above ground, and enable us, by analogy, to understand somewhat more clearly the changes and possible fecundity of their consin, who works mostly in the dark, like a conspirator. Few but those who have studied the now extensive literature of the Phylloxera can have any idea of the amount of industry and expenditure of time which has been devoted to this little insect by the most celebrated entomologists of France and other countries. It will be sufficient for our purpose to present a very condensed account of the metamorphoses of the insect as far as has been made out, so as to obviate a few of the extraordinary canards which seem to be floating in everyday talk. Thus one proprietor declared to the writer that "he would soon do for the Phylloxera if it put in an appearance in his vineyard." "As how, for instance?" was naturally asked. "Why, I would buy a gross of mole-traps and set them all over the vineyard, of course." To such an erroneous estimate of the size of the Phylloxera had this unfortunate been brought by too literal acceptance of the exaggerated figures of Hatcher's published diagram.

Every cycle of recurring forms must, in a description, be broken somewhere, to commence the life-history at that point. We will suppose the existence of a true egg, the immature progeny of two parents, male and female, whose concurrence is necessary for its production. From this egg arises a single female, the founder of a new brood.

Her behavior, after exclusion from the egg, will probably be found to present some

variations dependent upon climatic conditions and even the variety of vine upon which she plays her part. This *Phylloxera fundatrix*, in her native America, being aerial in habit, punctures the leaves of the vine and sucks their juices. Just as in the case of the gall insects, the leaf-tissues swell and form knobby excrescences surrounding and finally enclosing the insect. In this cavern of green parenchyma the foundress lays many hundreds of yellow oviform bodies. These might readily be mistaken for true eggs, analogous to the true ovum we have signalized as the source of the fundatrix herself. But observe, that since her exclusion we have had to do only with the foundress herself. There is no appearance of a male element for fertilization. These bodies deposited by the foundress, therefore, are not truly ova; but are, analogically, more reasonably to be called *pseud-ova*, false eggs, or egglike larvæ. Their constitution and formation may be likened, *madris mutandis*, to the propagation of plants by budding, grafting, cuttings and layers, as opposed to the normal sexual propagation by seeds, which are the result of the concurrence of a fertilizing pollen-grain of one plant with the embryonal vesicle in the ovary of another.

This disposition of *pseud-ova* or larval oviform bodies continues throughout the summer till the death of the fundatrix. One leaf may bear a hundred galls. As might be expected, such interference with the natural functions of the leaf is not done with impunity. The leaves are, be it remembered of everybody, not only lungs, but stomach also to the plant. In the leaves the carbon dioxide of the atmosphere is decomposed, the carbon digested or "assimilated" into various sorts of food material of which starch is the chief, and some of the oxygen is given off. This is as true a digestion as when you, sir, or madam, turn a juicy mutton-chop, by the clever chemistry of your stomach, yet unconsciously, into your own personality. Such work the plant does only in the day time under the stimulus of sunlight. Meanwhile, sunshine or darkness, another process of oxidation is going on. A little of the carbohydrates in the plant is composed and oxidized, and carbon dioxide is given off. Clearly these two processes are converse to each other; the former is very active and easily recognizable, the latter very sluggish and apt to be overlooked, and, as it were, overlapped by the energy of the former. But it is exactly the same sort of chemical operation as goes on in the human lungs, where the carbon of our fatty, starchy or sugary food is oxidized off into carbon dioxide and water, giving always a potential of force, viz., our animal bodily heat. Now, this being so, the abnormal interference with the life-routine of the healthy leaf, paralyzes at once the digestion and the respiration of the plant. The vine looks sickly, the leaves shrivel up and turn yellow or brown, finally dropping off altogether, or remaining attached yet lifeless. If the stocks are so young as to be in a condition of considerable diametric increase, they cease to enlarge.

To understand how the mischief goes on, one must leave the aerial part of the plant and go below ground. The multitudinous *pseud-ova* have speedily come to maturity of their larval egg-like stage, have escaped from the gall, and crawled down the stock to the roots. So numerous are they often-times that on gently burying the rootlets, not the brown-barked main tap-root, these

appear to the naked eye as if powdered over with chrome yellow. This is the subterranean apterous (wingless) female, and is the stage in which the greatest mischief is done to European vines and their descendants, although in America the gall-producing fundatrix is, on the contrary, the greater sinner of the two. As yet it has not been seen here.

To this subterranean form belongs the insect which, in various stages of growth, has been found plentifully during the last few days within a small area around Moscow. They are smaller than the fundatrix, which we have not yet found at the Cape, measuring, in the largest specimens, .026 of an inch. That is to say, nearly forty of these underground Phylloxera, placed snout to tail, would fill up the space of a lineal inch. It is of some importance to know how little they are, even were it to prevent you from the now historic blunder of the man who was going to give a large order in mole-traps. Measure off an exact half-inch along a fine line drawn on a card, and divide it into quarters. Subdivide each quarter into five parts as nearly equal as you can by the eye. Then you have a notion of the length of the biggest wingless Phylloxera you are likely to see. As a rule, the average size will be far less readily visible than the dots of the *i's* in the print you are now reading. They are clear lemon-yellow, a little darker at the head and the tail. The shape is rather variable; some are ellipsoid, others more like a clumsily cut toy-kite, but not so sharp below. If you have a tolerably good microscope, you may transfer one to a slip of glass on which you have pasted a circle of thick paper with a clear center cut out. Place one drop of weak glycerine and water, say one to five, and slip a film of glass or mica over the paper cell. If thick enough, the cell will prevent the little beastie from being squeezed out of recognition, and you can view her at your leisure. Note the antennæ or "horns," with their three joints. Other aphids have five. Note, too, the feeble but quite sufficiently crawly legs, and, above all, by careful focussing get a view of the rostrum. With this instrument the mischief is done. It is a modification of the organs constituting the typical insect mouth, with special adaptation to puncture and suction. The "lip" is much elongated into a jointed tubular sheath for the bristle shaped altered mandibular and maxillary parts. The organ, at rest, lies flat along the lower surface of the body, and can evidently be sufficiently erected, driven into the growing tissues, and serve as a carrier for the abstracted cell-sap. Now, remembering the fungus-like excrescences produced by the fundatrix's puncture of the leaves, it is no wonder that the pestilent crowd upon the fibrillæ of the growing roots cause similar mischief. Whereas a healthy fibril of the year is almost exactly cylindrical, smooth and regular in direction, the phylloxerized rootlet is gnarled, lumpy, knotted, with sudden tuberiform enlargements here and there. Should the insects have done their level best on a rootlet, and just about sucked its life out, they migrate to fresh pastures, and leave the dying rootlet flaccid and rapidly decomposing. But do not suppose they are doing naught else but sucking good vine juice. All the summer, although unfertilized, they keep depositing *pseud-ova*, larval egg-like progeny. These seem to be abstracted from the interior of their ovarian cavity something after the fashion of the little bulbils which form in dozens at the base of a *Ficosea* bulb, or in

a head of garlic. When this bud-propagation reaches its maximum, the form may be called "gemmans," as representing its most active life function. Several examples referable to it have been discovered here.

At the close of the summer season, (in Europe and America) some of the subterranean apterous females come up to the surface, develop wings, and fly away to other vineyards on a mission of mischief. They swarm out of the ground literally in thousands, and each will deposit from one to eight *pseud-ova*, sometimes on the leaves and sometimes in the crevices of the bark of the stem. This is the winged "pupifera," with which we shall doubtless make personal acquaintance in a week or two. Several have already been seen. The pupifera stage presents the insects as a very minute fly, with hyaline wings and, proportionately, a rather clumsy body. Its function is to lay *pseud-ova* of two distinct sizes upon the aerial parts of the vine. From the smaller of these proceed tiny wingless males; from the larger wingless females. Neither of these have any mouth, and simply live to propagate their kind by direct fecundation. The result is a large, rue egg, the "winter-egg" of the Phylloxera's numerous biographers; a form capable of enduring considerable hardship and change of temperature during its hibernation and therefore probably that in which, in most cases, it has been transmitted from country to country.

Recapitulating, we have first the winter egg, the progeny of sexed parents; second, the fundatrix, capable of agamous reproduction; third, the subterranean, wingless, agamous female; fourth, the aerial, winged, agamous pupifera; and, fifth, the apterous sexed male and female, parents of a new winter egg.

Finally, whether this life history of an insect, no bigger than a pin's point, prove to the Cape a tragedy in five acts, or a spur to the sides of our intent to hold our own and not be beaten by circumstances, lies exactly in our own hands. Time and skill incredible have been lavished upon the mastery of the entire question, money has been poured out like water to get at the minutest datum required for the settlement of the matter. To all this skill, experience and money, we here at the Cape are, so to speak, the heirs. We, though strangers in speech and almost as strange in blood, inherit the results gained by the great French nation in their struggle, gallantly maintained, year after year, against what I may truly call the most appalling cultural disaster that has befallen industry in the nineteenth century. Which is to be? In the struggle for existence, which will prove himself the fittest to survive—the wine farmer or the vine-lice? A similar question cropped up last year. It was then, "Which shall be master, the scab-insect or the sheep-farmer?" A Parliament of country-folk decided—so poor was their pluck—that the insect was the more powerful animal. But we shall, God willing, change all that, and if the advent of the Phylloxera only teaches us new self-reliance, new belief in our own manhood, and the grand piety of work as opposed to the wretched canting laziness of looking for supernatural aid to remove a natural disaster, we shall have learned a lesson for all time that will make men of us, and give fresh meaning to our country's title as a land of Good Hope.

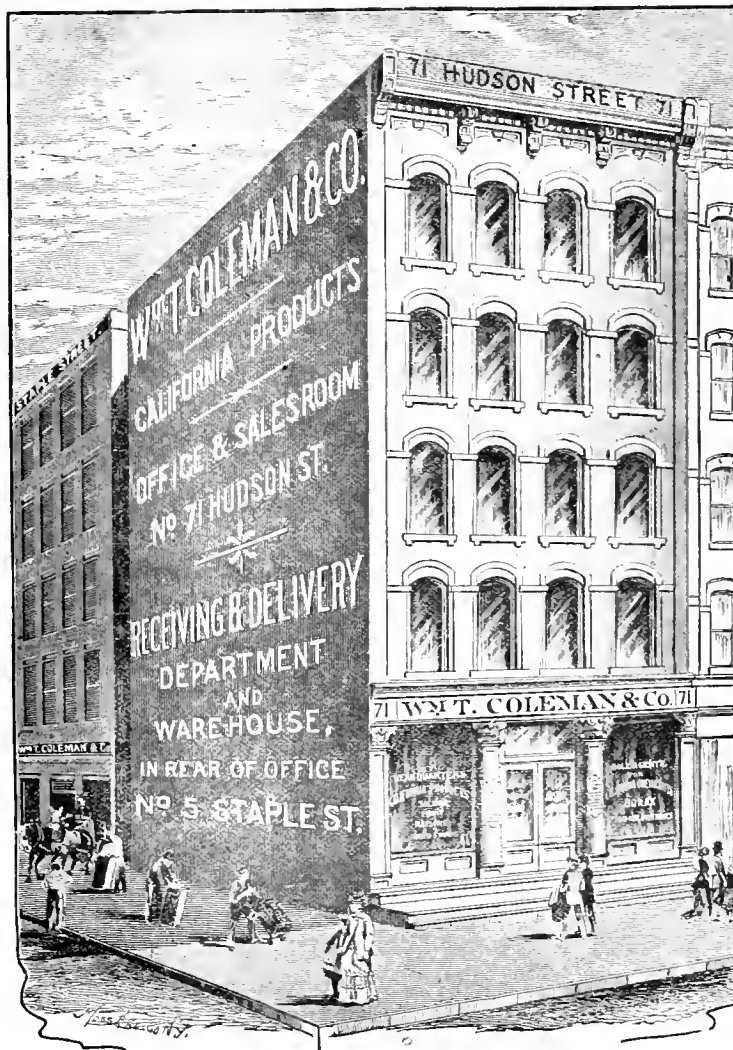
The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

CALIFORNIA WINES AND BRANDIES,

San Francisco,
121 Market Street.

Astoria, Oregon,
Flavel's Wharf.

Chicago, Ill.
91 Michigan Avenue.



New York.
71 Hudson Street.

London,
4 Bishopsgate St.,
within E. C.

Liverpool,
54 Drury Buildings.

WM. T. COLEMAN & CO.
71 HUDSON STREET, NEW YORK CITY.

ALSO AGENTS FOR
ALCOHOL WINE AND SPIRITS.

Almond Growing in Australia.

[Wynberg Times]

In answer to inquiries Mr. Thomas Hill of Tarlee has most courteously supplied information respecting his experience with almond trees. His almond orchard is in a most exposed situation, upon a hillside, fully open to the north and east for many miles, and from his own replies it will be seen that beyond gathering the nuts, not very much trouble has been taken to cultivate the land; and the results may show perhaps that an acre or two of almonds in more suitable localities would give almost as good returns as wheat. The soil is heavy red loam, with stiff clay subsoil; upon a hillside sloping to the east; and exposed to easterly winds. The trees are never watered except when nature performs the work; sheep are turned in; last year the land was ploughed, and the yield of almonds was less than ever before—probably owing to want of rain. The trees were planted in holes dug for the purpose, and they were not afterwards touched. There are about four acres of almonds altogether, consisting of Brandis, paper-shell, bitter, and hard-shell. The hard-shell is considered to be the best flavored, but the Brandis is in the largest number; they give the best return, and give the least trouble. The hardshells cracked sell at highest price. The trees are planted at distances of 12 ft. apart—which Mr. Hill thinks too close, and he would have planted them wider apart. They were planted by a predecessor. The trees are pruned very little; and this season he obtained only 450 pounds of nuts, which he sold as follows:—Hardshells, 16s. per cwt.; softshells, 4½d. per lb. The best crop was gathered four years since, which realized £22. The cost of cultivation is nil, and the nuts are gathered by the family, being a tedious job; but as the almonds ripen after harvest, they come in at a slack time. The trees are about fourteen years old, and appear to be healthy enough, though they do not produce enough wood to please the proprietor. He adds—"This is rather poor land for trying experiments. We have too much salt on the land and not sufficient rain to keep it down. I have planted several hundred gum and other trees, but cannot make them grow. Lucerne does not do nor Holcus. I have tried several times and never could get a crop; 1881 was total failure. Mr. Cotton is going to send a few fodder seeds to try. I have no faith in them unless we have more rain or irrigation."

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

CALIFORNIA Concentrated GRAPE MUSTS

FOR THE SEASON OF 1886 I WILL CONCENTRATE must of grapes from the celebrated Natoma Vineyard,

THOS. D. CONE,

Manufacturer of California Concentrated Grape Musts

OFFICE—640 CLAY ST., (Upstairs),

San Francisco.

Works at Homestead, near Sacramento, Cal.

AGENCY OF

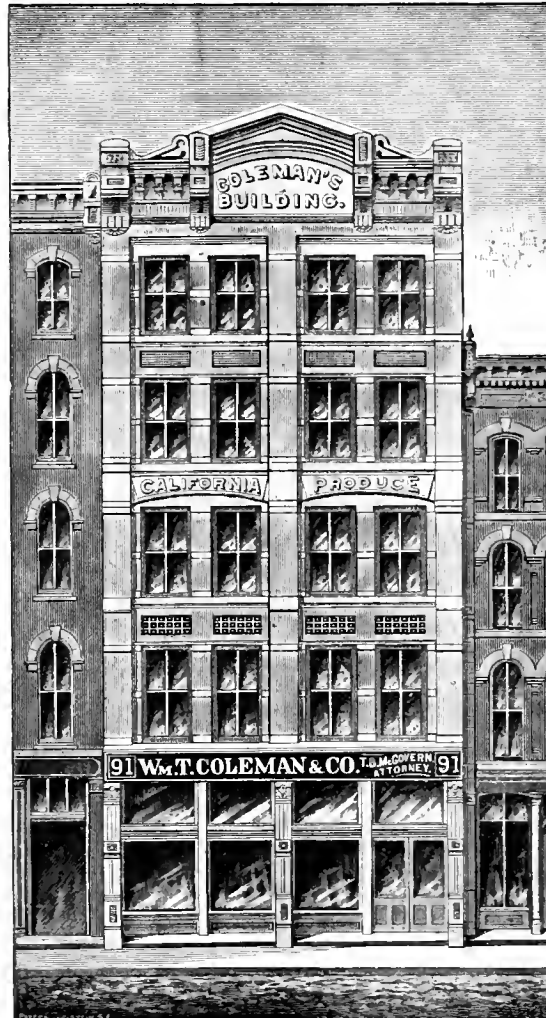
WM. T. COLEMAN & CO.

91 MICHIGAN AVENUE, CHICAGO.

California Products a Specialty.

California
Canned
Fruits.

California
Dried
Fruits.



California
Raisins.

California
Wines,

California
Oranges

COLUMBIA AND SACRAMENTO RIVER SALMON,

—AND ALL—

Pacific Coast Products Suited to Eastern Trade.

CONSIGNMENTS SOLICITED, AND ALL CORRESPONDENCE

PROMPTLY ATTENDED TO.

T. B. McGOVERN, Manager.

"LE MERVEILLEUX"

— THE —

**MOST POWERFUL
Wine and Cider Press
YET PRODUCED.**

Patented in France, England, Germany, Belgium, Italy, Norway, Sweden, Denmark and the United States.



This press (a French invention) has been used several seasons in the wine districts of France and Germany with great success, and is now introduced to the American public for the first time.

Its advantages are: Rapidity of action and illimitable power. With a single effort 3 or 4 times more power can be obtained than with any other press known at this day. It is also cheaper, capacity considered, than any other press in the market. Model on exhibition at office of F. W. KRUGG & CO., 51 Beale St., San Francisco, Cal.

PARE BROS.,
Sole Agents for United States, Fresno, Cal.
Send for Circular.

Valuable Patent FOR SALE.

The Claus Improved GRAPE-VINE TRELLIS.

LATELY PATENTED, ATTRACTS GREAT ATTENTION among vintners everywhere as far surpassing any other form by efficiency and perfection. Generally acknowledged to be a meritorious invention and an unrivaled progress in viticulture, it will pay its application tenfold. It is truly a first-class acquisition.

RIGHTS OF THIS PATENT

FOR SALE BY

AMERICAN PATENT AGENCY,

188 & 190 WEST 5th ST.

Cincinnati, Ohio.

Full descriptive illustrations, costs, etc., given by me above and the inventor

C. H. TH. CLAUS,

Cor. Iowa & Keokuk Sts., St. Louis, Mo.

WOODLAND WINERY FOR SALE.

Located at Woodland, Yolo County, Cal.

Complete in all its Appointments. Capacity 120,000 gallons. Steam Crusher, Hand Crusher, two Stills, Syrup Pan, Pumps, and everything Complete. Cooperage in best condition.

TWO-STORY BRICK BUILDING,
125x60 Feet. Fifty rods from Depot.

Three thousand tons Wine Grapes raised here last season. This is a rare chance for engaging in this business. For full particulars inquire at office of

LANDBERGER & SON,
123 California Street, S. F.

— OR TO —

CLARK & CULVER, Proprietors,
WOODLAND, Cal.

A. 1876 S. I. XII.
I. S. 1888 G.

The Industrious never Sink.

GUY E. GROSSE, Broker in Real Estate
Ranches, Residence, Business and Manufacturing Property Bought and Sold on Commission.
Also Publisher of "Sonoma County Land Register and Santa Rosa Business Directory."

Office, No. 312 B St., SANTA ROSA, CAL.

BOSTON BELTING CO. GOOD HOSE A SPECIALTY.

J. W. CIRVIN & CO.,
24 CALIFORNIA STREET, S. F.

FILTERS FOR WINES. FILTERS

GEO. J. HITCHINGS,
148 N. HOWARD ST., BALTIMORE, Md.

THE WELLINGTON, 21 DUPONT ST.,

Near Market, SAN FRANCISCO.

Handsomely Furnished Rooms
FOR GENTLEMEN ONLY.

HERRMANN & CO., HOP MERCHANTS.

Importers and Dealers in

CORKS, BREWERS' AND BOTTLERS SUPPLIES,
SODA WATER AND WINE DEALERS' MATERIALS.

**ALEX. FRIES' & BROS. COGNAC OILS,
ESSENCES AND FLAVORS.**

331 SACRAMENTO ST. San Francisco.

NOW READY.

THE REPORT

OF THE

FOURTH ANNUAL STATE

VITICULTURAL CONVENTION.

PRICE, ONE DOLLAR.

OFFICE OF THE SAN FRANCISCO MERCHANT.

E. C. HUGHES & CO.,

Publishers,

511 Sansome Street,

CALIFORNIA VINEYARDS.

KRUG CHARLES,
Krug Station, St. Helena, Napa Co., Cal.
Producer of fine Wines and Brandies.

J. C. WEINBERGER, Manufacturer of Wines, near St. Helena

H. W. CRABE, Wine Cellar and Distillery, Oakville, Napa County.

SAN FRANCISCO WINERY, ICE & REFRIGERATION PROPRIETORS, 116 1/2 Eighth St., S. F., Cal.

MOUNTAIN WINE

From the Celebrated

YERBA BUENA VINEYARD,

Situated 7 miles East of San Jose. One thousand feet above the Valley. In cases or bulk fine old Burgundy and Mountain Riesling

PAUL O. BURNS WINE CO., Proprietors.
Branch Cellars in San Jose, Cal.

WM. T. COLEMAN & CO., SAN FRANCISCO,
Sole Agents for Chicago and New York

T. & M. E. Tobin & Co.,

PRODUCERS OF PURE

CALIFORNIA WINES & BRANDIES,

Cor. Stockton & O'Farrell Sts.,

San Francisco, Cal.

A. ZELLERBACH,

IMPORTER AND DEALER IN

**BOOK, NEWS, FLAT, WRITING
PAPER.**

MANILA, WRAPPING AND STRAW PAPER,
Colored, Poster and Tissue Paper, Also Envelopes and Twine.

419 & 421 CLAY STREET.

A few doors below Sansome, San Francisco, Cal.

E. L. G. STEELE & CO.,

Successors to

C. ADOLPHE LOW & CO., COMMISSION MERCHANTS.

Agents American Sugar Refinery and Washington Salmon Cannery.



P. P. MAST & CO.

31 MARKET ST., S. F.

SELL THE WELL AND FAVORABLY KNOWN

BUCKEYE PUMPS,

The simplest and easiest-worked Pump

FOR WELLS OF ANY DEPTH

Each Offered.

SEND FOR CIRCULAR AND PRICE LIST.

Graham Paper Co.

OF ST. LOUIS.

W. G. Richardson,

PACIFIC COAST MANAGER,

No. 529 Commercial St.,

SAN FRANCISCO, - - - CALIFORNIA.

TELEPHONE No. 1064.

THE CUPERTINO VITICULTURAL SOCIETY

Meets on the evening of the third Thursday of each month at Mr. Montgomery's.

J. C. MERTHEW President
J. D. WILLIAMS Vice President
R. C. STILLER Secretary

Please address all communications to R. C. STILLER, Gilsumville, Santa Clara Co., Cal.

FRAZER AXLE GREASE

BEST IN THE WORLD
Its wearing qualities are unsurpassed, actually outlasting two boxes of any other brand. Free from Animal Oils. **GET THE GENUINE.**

**FOR SALE BY
CALIFORNIA MERCHANTS**
and Dealers generally.

FOR SALE CHEAP.

A new 300 gallon STEAM STILL with all improvements; also a

GAR & SCOTT 25 HORSE POWER Agricultural Engine.

But little used and warranted in good condition. Apply to

SANDERS & CO.,

121 Mission Street, San Francisco

DIVIDEND NOTICE.

The German Savings and Loan Society.

DIVIDEND NOTICE—THE GERMAN SAVINGS and Loan Society. For the half year ending June 30, 1886, the Board of Directors of the German Savings and Loan Society has declared a dividend at the rate of four and thirty-two one-hundredths (4 32/100) per cent per annum on term deposits and three and sixty one-hundredths (3 60/100) per cent per annum on ordinary deposits, payable on and after the 1st day of July, 1886. By order,
GEO. LETTE, Secretary.

ESTABLISHED IN 1869.

ALL WINE MAKERS

Should drink the

PURE BELMONT

— HAND-MADE —

SOUR MASH WHISKY.

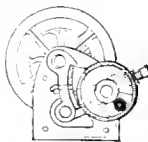
Supplied in lots to suit by

JAMES CIBB, 617 Merchant St.

QUARTZ BREAKERS

— AND —
PULVERIZERS COMBINED!

TO MINING
RUN BY MACHINERY
HAND OF
OR EVERY
POWER. DESCRIPTION.



DRAWINGS, PLANS AND SPECIFICATIONS.

E. I. NICHOLS.

316 Mission Street, San Francisco.

THE RISDON IRON AND LOCOMOTIVE WORKS.

Cor. Beale & Howard Sts., S. F.

W. H. TAYLOR, Pres't. JOSEPH MOORE, Supt.

BUILDERS OF STEAM MACHINERY

IN ALL ITS BRANCHES.

Steamboat, Steamship, Land Engines
and BOILERS, High Pressure or Compound.

STEAM VESSELS of all kinds built complete, with Hulls of Wood, Iron or Composite.

STEAM BOILERS. Particular attention given to the quality of the material and workmanship, and none but first-class work produced.

SUGAR MILLS AND SUGAR-MAKING MACHINERY made after the most approved plans. Also, all other Iron Work connected therewith.

PUMPS. Direct Acting Pumps, for irrigation or City Water Works purposes, built with the celebrated Davy Valve Motion, superior to any other Pump.

Some Points in Raisin Packing.

[Fresno Republican.]

The closest supervision of the packing of raisins is necessary. Those raisin men who cannot personally supervise their own packing and bring the same up to the required standard, would do much better not to put their own names and labels on the boxes, as it would probably injure their reputation or the reputation of their brands. To let the packing take care of itself is simply folly; it will not do it; and to say that it will be done better next year is certainly no guaranty. A brand that has once gotten a bad reputation is very difficult to re-establish, and it will take years of careful packing to undo the mischief. The Chinese packers have a peculiar way of packing, putting the raisins of facing layer on end instead of laying them flat. This, of course, makes the raisins appear much smaller than they are, gives the box a poor appearance and accordingly brings to the owner an inferior price. Especially in loose Muscatelles, we would recommend improvement in some brands. These loose Muscatelles should be graded in two grades. The second grade needs no facing, and the grapes may be simply put in boxes, freed from poor, small or brown raisins, and than pressed flat; that is sufficient. But the first quality should not

only be carefully culled out and graded, but after $3\frac{1}{4}$ pounds have been packed, the box should be pressed and then a facing of $1\frac{1}{2}$ pounds of layer berries should be flattened out so as to look large and placed in longitudinal rows. The flattening is done by simply putting the raisin on a hard surface and then pressing it with the thumb. The surface facing the table must in packing be placed upward, as this surface has all the bloom preserved, and also presents the fine corrugations so much admired in the larger raisins. This mode of packing, of course, refers only to the Riverside way, where the facing is put on last. But the much better way is the old one—to pack the facing layer first. By doing so we gain two important points: First, we have a hard surface—the bottom of the box—to pack against; second, it is unimportant how much of the facing is required, and it is not necessary to weigh it out separately, provided all the raisins are of one size. If a larger raisin is used for facing, the quantity that is left can easily be replaced with the same quantity of common raisins of the same grade. This cannot be done if the facing is put on last, and in the latter way there will always be some difficulty in giving the box the full measure. We are satisfied that those who this year jumped at the new style of packing from bottom to top, will next year return to the old way. It is a little slower, but infinitely superior.

OUR NATIVE WINE SHIPMENTS BY SEA.

TO NEW YORK—PER STEAMER SAN JUAN, JUNE 23.

MARKS	SHIPPERS	PACKAGES AND CONTENTS	GALLONS	VALUE
E D, New York	C Anduran & Co	5 half puncheons Wine	328	\$196
S & C, New York	"	50 barrels Wine	3927	1395
A R, New York	"	20 barrels Wine	965	500
L Bros, New York	Napa Valley Wine Co	3 barrels Wine	150	67
A Barclay, New York	"	2 barrels Wine	100	62
W H, New York	"	1 barrel Wine	50	35
M Cohen, New York	Williams, Diamond & Co	5 half barrels Brandy	126	252
Total amount of Wine			5520	\$2,256
Total amount of Brandy			126	252

TO CENTRAL AMERICA.

C V, San Jose de Guatemala	Fred'sburg Brewing Co	1 barrel Wine	48	\$33
S & Co, "	Schwartz Bros	1 octave Wine	28	21
S & S, "	"	12 packages Wine	96	96
E F O, "	Bingham & Pinto	15 kegs Wine	75	80
W J R, San Jose de Guatemala	Eugene de Saba & Co	1 keg Whiskey	5	16
J G G, "	"	20 cases Wine	100	76
C J, "	Wulmerding & Co	1 barrel Whiskey	38	79
A B, "	J M Tinoco & Co	1 cask Wine	50	32
H & Co, "	Williams, Diamond & Co	100 cases Whiskey	600	600
Total amount of Wine, 12 packages and			201	\$338
Total amount of Whiskey, 100 cases and			43	696

PER P. M. S. S. CO'S STEAMER CRANADA, JUNE 15, 1886.

M C, in diamond, S J de G'mala	Cabrera, Roma & Co	8 keg Wine	80	\$62
F V, Corinto	"	1 barrel Wine	20	22
Total amount of Wine			100	\$84

TO PANAMA.

J R, Panama	C Anduran & Co	20 half puncheons Wine	1215	\$465
"	"	10 half casks Wine	301	125
Total amount of Wine			1516	\$590
Total shipments by Panama steamer			7,457 gallons	\$3,520
Total shipments by other sea routes			910 "	619
Grand totals			8,367	\$4,139

MISCELLANEOUS SHIPMENTS.

DESTINATION.	VESSEL.	RIG	GALLONS.	VALUE.
Honolulu	Forest Queen	Bark	170	\$91
La Libertad	Lottie Fairfield	Schooner	156	175
Japan	Oceanic	Steamer	5	8
China	Oceanic	Steamer	266	164
Victoria	Mexico	Steamer	45	31
Alta	Porfirio Diaz	Steamer	268	144
Total			910	\$619

THE COOS BAY STAVE & LUMBER CO.

— MANUFACTURERS OF ALL KINDS OF —

COOPERAGE GOODS!

Especially invite the attention of Wine Men to their unsurpassed facilities for supplying packages from a

5-GALLON KEG TO A 160-GALLON PIPE OR PUNcheon.

Our machinery enables us to execute all orders with promptness and economy. Price List on application.

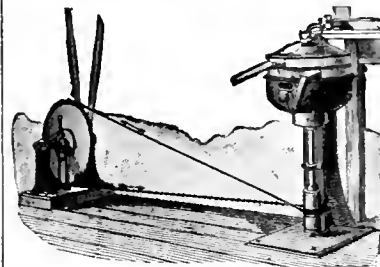
OFFICE: 323 FRONT STREET,

WORKS.....BRANNAN ST., NEAR EIGHTH.

Pure Sweet Cream.

More Cream.

Better Butter.



DE LAVAL CREAM SEPARATOR extracts all Cream from Fresh Milk. Greatest Dairy Improvement of the age. Dairy-men lose money every day setting milk. Our customers write: "Decided increase in yield of butter;" "Butter brings over the highest market quotations;" "Separator pays for itself over and over again;" "Great saving of labor;" "Needed in every dairy of twenty cows;" "If we had to go back to setting milk we would give up dairying."

1000 in Successful Operation in the United States. Over 50 on the Pacific Coast.

And all giving unbounded satisfaction.

STODDARD BARREL CHURN with improved cover fastening. The only practical Churn for the dairy. Awarded First Premium California State Fair, 1885; also First Premium Mechanics' Fair, San Francisco, 1884 and 1885, overall opposition. The Stoddard Churn is as great an improvement over the cumbersome, leaky, and often sour box churns as the Cream Separator is over setting in pans, and this fact is fast becoming realized, as is proven by the growing demand for them, and they are being adopted by our best dairies with the most gratifying results. Beware of imitations of the "Stoddard."

Price List—No. 1—10-gal. Churn, 1 to 4—\$8 No. 4—25-gal. Churn, 4 to 12 \$12 No. 2—15-gal. Churn, 2 to 7—9 No. 3—35-gal. Churn, 5 to 15—14 No. 3—20-gal. Churn, 3 to 9—10 No. 4—60-gal. Churn, 6 to 28—20

Extra heavy frames, pulleys, etc., extra. Send for price list of larger sizes, of which we carry up to 120 gallons. Come and visit several Separators in operation near this city, or send for information where they are used in your vicinity. Don't neglect to send for descriptive circulars at once of this and other Latest Improved Dairy Appliances for which we are headquarters.

C. C. WICKSON & CO.,

38 CALIFORNIA STREET AND 106 DAVIS STREET, SAN FRANCISCO.

WM. T. COLEMAN & CO.,

Commission Merchants.

SAN FRANCISCO,

NEW YORK,

CHICAGO,

Agency WM. T. COLEMAN & Co.,

Agency WM. T. COLEMAN & Co.,

ASTORIA, Or.,

LONDON.

With Agents and Brokers in every Commercial City of Prominence in the Union.

WE MAKE A SPECIALTY OF HANDLING THE RAISIN CROP OF CALIFORNIA!

And amongst others we are Agents for

Riverside Fruit Company of Riverside, Miss Mary F. Austin of Fresno, McPherson Bros. of Orange, T. C. White of Fresno.

With many other of the Most Prominent Curers of this State.

Our Facilities for Promptly Placing and widely Distributing Their Produce Can be Ascertained from the Above well-known Curers.

We are also Large Handlers of

ORANGES, DRIED FRUITS, HONEY AND BEANS

IN THE EASTERN STATES.

Advances Made when Required, and Full Information of Markets Promptly Given. Address

WM. T. COLEMAN & Co.

MARKET & MAIN STS., S. F.

Intemperance and Wine.

[San Luis Obispo Mirror.]

The discussion of wine in its relation to intemperance is attracting the attention of the people of this State in a constantly increasing degree as the importance of our wine industry increases. It is claimed by some prohibitionists and tee-totalers that the assertion that wine is a preventive of drunkenness is merely a plea of the wine-maker and wine-merchant in favor of their industry, and is without foundation. If people who are so free with their opinions and so positive in their declarations on this or any other subject would take the pains to read authorities and study statistics on both sides there would be less intemperance in the world in this respect. The United States is so essentially a non-wine-consuming country that but little can be learned by observation and reports of interested and self-constituted investigators must be taken with a great deal of allowance. The French are probably the most systematic wine-drinkers in the world and the testimony that the French people, as a nation, are not given to drunkenness, is overwhelming. Mr. Wetmore, one of the leading viticulturists of this State, says that he has observed the beginning of a war with intoxication in Southern France, and that it is not caused by too much wine but through a lack of it. The phylloxera has destroyed the vines and the supply of wine cut off. In districts where wine is plentiful he saw no intoxication whatever. Cooper county, Missouri, is another section where personal observation demonstrates that a habitual use of wine does not cause intemperance. This section is inhabited by a thrifty German population which has transformed the rugged limestone hills into a vineyard. Drunkenness is unknown amongst them and they are habitual users of wine. A habit which has been instilled into them by a constant use of wine at the table and as a beverage for fifty years. A more robust, intelligent, hospitable and temperate class of men cannot be found upon the face of the globe, and the cheeks and the lips of the women are as red as the wine that gives them their color—their refinement and amiability are only surpassed by their modesty and virtue. The great thinkers upon intoxication have been trying for years to introduce wine among the common classes of England to serve as a preventive and cure for intemperance, but have failed because the wine cannot be had. Professor Hilgard states that all the wine that is produced in the world is used. This fact settles the question of an increased consumption until there can be an increase in the production of wine. The State Viticultural Commission is working earnestly for the success of the wine interests of California. Its reports should be attentively studied by every grower of vines, whether his vineyard covers acres of land or amounts to only a few vines for private use. There are many questions relating to diseases and pests; to different varieties for the several wines; to raisins and table grapes, all of which should be understood. California is destined to be one of the greatest wine-producing countries in the world. The perpetuity of the industry depends upon an intelligent comprehension of the subjects and a constant warfare upon the enemies of the vine. Let us encourage temperance by advocating the use of wine as a beverage. When wine becomes plentiful and cheap and our people learn to use it at their tables, stronger drinks will disappear and drunkenness will be unknown.

GRAPES AND BERRIES.**Their Profitable and Easy Cultivation on the Sacramento Plains.**

J. McNie, of Florin, has sold this season \$124 worth of strawberries from a patch of about half an acre planted last year, between rows of grape vines. Last year a neighbor of his began planting another half acre patch, and continued planting through the Summer, on irrigated ground. From this patch strawberries to the value of \$120 have been sold this season. These results have been obtained without manuring. Next year the yield of berries should be much greater, as the vines will then be at their best. The great advantage of the Florin berry-growers is in the facilities they have for irrigation. An unfailing supply of the purest and softest water is found at a depth of ten or fifteen feet below the surface. The cost of a well, pump and windmill, for the irrigation of five acres or more, is from \$50 to \$100, and there is seldom a failure of wind. It is a comparatively easy matter for a poor man to establish a vineyard in the Florin district. Strawberries can be grown between the grape vines until the latter come into bearing, and the berries make the place pay after the first year.

The plain east of Sacramento must in time become covered with vineyards. They will annually furnish thousands of carloads of table grapes for shipment to the Eastern markets. The Tokay is most in demand for shipment, as it has a fine color and is large and firm. Nowhere is it produced to greater perfection than in Sacramento county. A vineyard of Tokay grapes, with convenient shipping facilities, is as good an investment as any man need want in California. The Spaniards have a proverb that "water is worth more than gold," and beneath the plains of Sacramento county, the fruit-growers are developing a water bonanza that is safe from monopoly. The water supply is inexhaustible, and is forever attached to the land. What a pity it is that all the waters used for irrigation are not thus secured by nature for the free use of the owners of the soil!—*Daily Bee*.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

BUY THE HOWE SCALE.

D. N. & C. A. HAWLEY,

AGENTS, San Francisco.

ARE YOU USING WELLINGTON'S IMPROVED EGG FOOD For Poultry? IF NOT, WHY NOT? EVERY GROCER, DRUGGIST AND MERCHANT SELLS THIS EGG FOOD.

L. LANDSEBERGER, HENRY M. LANDSEBERGER.

Landsberger & Son, Commission Merchants,
123 CALIFORNIA STREET,
SAN FRANCISCO.

Agents for the Purchase and Sale of Viticultural Products and Vintners Supplies.

E.C. HUGHES PRINTER

511 Sansome St., S. F.

W. E. CHAMBERLAIN, JR. F. A. ROBINSON

**Life Scholarships, \$75.**

DAY AND EVENING SESSIONS.

Ladies Admitted into all Departments.

No Vacations. Send for Circular.

CHOICE OLD WHISKIES

PURE AND UNADULTERATED.

We Offer for sale on Favorable Terms to the Trade.

CATHERWOOD'S**Celebrated Fine Old Whiskies,**

OF THE FOLLOWING BRANDS, NAMELY:

"CRANSTON CABINET"
"A.A.A." "CENTURY"
"OLD STOCK"
"HENRY BULL"
"DOUBLE B"
"MONOGRAM"

VERY OLD AND CHOICE, IN CASES OF ONE DOZEN QUART BOTTLES EACH,

"BRUNSWICK CLUB" Pure Old Rye, And "UPPER TEN."

For Excellence, Purity and Evenness of Quality the above are unsurpassed by any Whiskies imported. The only objection ever made to them by the manipulating dealer being that they cannot be improved upon.

Dickson, De Wolf & Co.**SOLE AGENTS,**

SAN FRANCISCO, CAL.

Challenge Wine Pump.

WITH BRASS LINED CYLINDER, OR ALL BRASS PUMP.



The annexed cut represents our Challenge Wine Pump of great compactness and power, for use in vineyards for pumping from one tank into another. The cylinders of our iron pumps are brass lined, the piston rods, valves and valve seats are brass. On all brass pumps are made entirely of brass with exception of the lever. Very suitable as a power wine pump.

Wine Tanks, WATER TANKS

We manufacture our tanks of two inch first quality Redwood Lumber, well seasoned, free from knots, with a hoop of every foot in height and guarantee them to be well made in every respect. Write for special prices. 2014 E. Send for our special Catalogue of Wind Mills, Pumps, of all description, Wine Hose, Garden Hose, Wine Cocks, etc. Mailed free upon application.

WOODIN & LITTLE,
509 and 511 Market Street, San Francisco.

GOODYEAR'S "COLD SEAL" Rubber Hose

For Sale by All Dealers.

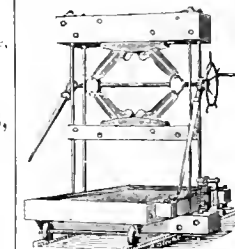
**GOODYEAR RUBBER CO.**

R. H. PEASE, JR., AGENTS.

S. M. RYAN, AGENTS.

577 and 579 Market St., SAN FRANCISCO.

WORTH'S IMPROVED PATENT COMBINED TOGGLE LEVER SCREW PRESS.



I desire to call the attention of wine and Cider makers to my Improved Press. With this Press the movement of the lower, one-sixteenth of an inch. The follower has an up and down movement of 2 1/2 inches, with the Double platform run on a railroad track. You can have two curbs, by which you can fill one while the other is under the press, thereby doubling the amount of work of any other press in the market. Model on exhibition at the offices of the Board of State Viticultural Commissioners. Also manufacture Horse Powers for all purposes, Ensilage Cutters, Plum Pitters, Worth's System of Heating Dairies by hot water circulation. Send for circular.

W. H. WORTH,

Petaluma Foundry and Machine Works,
Petaluma, Sonoma Co., Cal.

Testimonials from I. De Turk, Santa Rosa; J. E. J. Portal, San Jose; Ely T. Sheppard, Glen Ellen; Kate F. Warfield, Glen Ellen; J. H. Drummond, Glen Ellen; Joseph Walker, Windsor; John Hinkelman, Fulton; Wm. Pfeiffer, Gulesville; J. F. Muller, Windsor; R. C. Stiller, Gulesville; Lay Clark & Co., Santa Rosa; Vackey Freres, Old San Bernardino; J. F. Frank, William Allen, San Gabriel; James Enlayson, R. & J. J. Kelly, Healdsburg; W. Metzger, Walter Phillips, Santa Rosa; J. Lawrence Watson, Glen Ellen; Geo. West, Stockton; can be had by applying for printed circulars.



Olive and Olive Oil.

(H. Lassing, M. D., in New York Analyst.)

Olive (*Olea Europæa*), the well-known plant that yields the olive oil of commerce, belongs to a section of the natural order *Uleaceæ*, of which it has been taken as the type. The genus *olea* includes about thirty-five species, very widely scattered, chiefly over the old world, from the basin of the Mediterranean to South Africa and New Zealand.

An undoubted native of Syria and the maritime ports of Asia Minor, its abundance in Greece and the Archipelago and the frequent allusions to it by the earliest poets seem to indicate that it was there also indigenous; but in localities remote from the Levant, it may have escaped from cultivation, reverting more or less to its primitive type. It shows a marked preference for calcareous soil and a partiality for the sea breezes, flourishing with special luxuriance on the limestone slopes and crags that often form the shores of the Greek peninsula and adjacent islands.

The unripe fruit of the olive is largely used in modern as in ancient times as an article of dessert, to enhance the flavor of wine and to renew the sensitiveness of the palate for other viands. For this purpose the fruit is picked while green, soaked for a few hours in an alkaline lye, washed well in clean water and then placed in bottles or jars filled with brine; the Romans added "amurea" to the salt to increase the bitter flavor of the olives, and at the

present day spices are sometimes used. Among the Greeks the oil was valued as an important article of diet as well as for its external use. The Roman people employed it largely in food and cookery; the wealthy as an indispensable adjunct of toilet; and in the luxurious days of the latter empire, it became a favorite axiom that long and pleasant life depended on two fluids, "wine within and oil without."

Pliny vaguely describes fifteen varieties of olive cultivated in his day, that called the "Licinian" being held in most esteem, and the oil obtained from it at Venafrum, in Campania, the finest known to Roman connoisseurs; the produce of Istria and Bactria was regarded as second only to that of the Italian peninsula.

Having thus described the olive, the only fruit from which oil for human food is made, I will proceed to speak of commercial olive oils.

The districts whence most of the olive oil is brought are two, that of the Var, in south-eastern France; and the Riviera of Genoa, in Italy. These oils are severally known as the Huile d'Aix and Huile de Nice. There are also large quantities of oil brought from Tuscany. Sicilian oils are mostly used for manufacturing purposes.

It is most difficult to obtain reliable information from those who import these oils. From being accustomed to the oils they import, a taste has been acquired which, though insensibly to themselves, lead these parties to believe that there is but one first-

rate oil, and that is the particular oil they have learned to prefer.

So it comes, that when inquiry is made about Tuscan oils of importers of other oils, they will probably say that Tuscan oils at first taste quite agreeable that they are light colored and neutral to the taste but lack body; are without sterling qualities and soon become rancid. Those who do not import Bordeaux oils retort by calling attention to the fact that no oil is raised within many hundred miles of Bordeaux.

The oil coming from Grasse is a very sensitive, strictly neutral oil, and is much used around where it grows (because of the well known characteristics of all olive oils, that they are the best absorbents of odors known) to extract the odor of flowers, which is then withdrawn again with alcohol.

So, also, when an olive oil found having a sediment, which is most probably due to insufficient filtration, the importers of such oils will tell you the oil is "so delicate."

In 1856 the entire stock of Marseilles oils in New York was 25,000 cases. The importation of Marseilles olive oil in New York up to the time of the introduction of the cotton seed oil, about the close of the war, was 80,000 to 100,000 cases a year.

The importation of olive oils into the port of New York cannot be ascertained, but it is estimated at from 40,000 to 60,000 cases, all olive oil of every grade being put down in the Custom House by the gallon.

To base an estimate on the braggadocio reports of some of the smaller importers would give an annual import of about one million of cases.

The introduction of cotton seed oil has not affected the Bordeaux oils, but driven the so called Marseilles oil almost entirely out of the market. Cotton seed oil was the first introduced for eating purposes from New Orleans. It had long been used to make soap, but the Providence Oil Company is said to have been the first to clarify it.

The use of the so-called "lancy brands" in oils, that is, using names of packers who do not exist, is not always evidence of fraud, but is frequently done to please American wholesale houses, each of whom desires to be sole agent for an oil. As there are not first-class oils enough to distribute sole agencies promiscuously, fancy brands must be resorted to, hence we find many brands of the same oil.

Price for Grapes.

That grape growers will experience a good harvest this year there is no doubt. The yield will be good and the price will be in advance of that offered last year. It is reported that a few days ago a vineyardist was offered \$30 per ton for his crop of Zinfandel grapes, but he was undecided about accepting the proposition. — *Santa Rosa Republican*.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

SULPHUR! SULPHUR! SULPHUR!

FOR SALE IN

QUANTITIES TO SUIT.

WM. CLUFF & CO.,

WHOLESALE GROCERS,

16, 18, 20 and 22 Front St., Cor. Pine, S. F.

**THE AMERICAN SUGAR REFINERY COMPANY,**

MANUFACTURERS OF THE

CELEBRATED CUBE SUGAR,

Supplies Only Exporters and the Jobbing Trade.

This Company manufactures all the Grades of HARD and COFFEE SUGARS and SYRUPS. Special attention given to the making and Packing of Loaf Sugar for Export.

208 CALIFORNIA STREET,

SAN FRANCISCO, CAL.

E. L. G. STEELE,
President.

Dr. MINTIE

THE SPECIALIST,

No. 11 KEARNY ST., San Francisco.

Treats all Chronic, Special and Private Diseases with Wonderful Success.

THE GREAT ENGLISH REMEDY



Is a never-failing cure for Nervous Debility, Exhausted Vitality, Seminal Weakness, Spermatorrhea, Lost Manhood, Prostatitis, Impotency, Paralysis and all the terrible effects of self abuse, youthful follies and excesses in mature years, such as loss of Memory, Lassitude, Nocturnal Emissions, Aversions to Society, Dimness of Vision, Noises in the Head, excess in drinking intoxicating liquors, the vital fluid passing unobserved in the urine, and other diseases that lead to insanity and death.

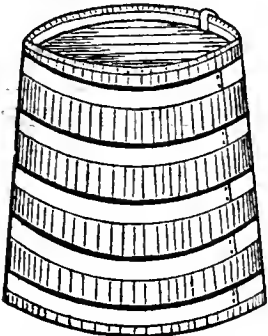
Dr. Mintie WHO is a Regular Physician Graduate of the University of Pennsylvania, who will agree to forfeit \$500 for a case of this kind the Vital Restorative, (under his special advice and treatment) will not cure, or for anything impure or injurious found in it. Dr. Mintie treats all Private Diseases Successfully WITHOUT MERCURY. Consultation Free. Thorough examination and advice, including analysis of urine, \$5. Price of Vital Restorative, \$1.50 a bottle or four times the quantity, \$5; sent to any address upon receipt of price, or C. O. D., secure from observation, and in private name if desired, by Dr. A. E. Mintie, 11 Kearny street, San Francisco, Cal. Send for pamphlet and list of questions.

SAMPLE BOTTLE FREE.

Will be sent to any one applying by letter stating symptoms, sex and age. Strict Secrecy in regard to all business transactions.

DR. MINTIE'S KIDNEY REMEDY NEPHRETICUM, cures all kinds of Kidney and Bladder Complaints, Gonorrhea, Gleet, Leucorrhea, etc. For sale by all Druggists; \$1 a bottle, 6 bottles for \$5.

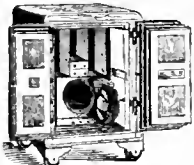
DR. MINTIE'S DANDELION PILLS are the best and cheapest DYSPEPSIA and BILIOUS cure in the market. For sale by all Druggists.

REDWOOD TANKS**F. KORBEL & BROS.**

727 BRYANT ST., S. F.,

Or at NORTH FORK MILL, Humboldt Co., Cal.

FIRE-PROOF SAFES ALL SIZES.



built to order.

CHAS. WALTZ, Inventor and Manufacturer of the Waltz Safe, Fire and Burglar Proof Safes, Time Locks, Bank and Vault Work, a Specialty. Expert work done in opening and repairing Safes and Locks. Beard's Patent Screw Door Burglar Proof Safes and Chests. Safes

11 Drumm Street, SAN FRANCISCO, CAL.

Write for prices and information.

RUPTURE RADICALLY CURED BY Dr. Pierce's Great Discovery. Thousands of patients cured at THEIR OWN HOMES. No Experiment! It does the Work! Drs. PIERCE & SON, 704 Sac'to St., San Francisco, Cal.

J. N. KNOWLES, MANAGER

EDWIN L. ORIFFITH, SECRETARY

ARCTIC OIL WORKS.

MANUFACTURERS OF

Sperm Whale, Elephant and Fish Oils, Skid Grease.

WHALE OIL SOAP.

ESPECIALLY ADAPTED FOR VINEYARDS AND FRUIT ORCHARDS.

OFFICE—28 CALIFORNIA STREET, S. F., CAL.

EL PINAL VINEYARD,

Stockton, Cal.

Cuttings and Vines For Sale of the following varieties:

PETIT BOUSCHET, MONDEUSE, VERDOT, ALICANTE BOUSCHET BOAL CABERNET FRANC, MALBECK, CABERNET SAUVIGNON, MANTUO DE PILAS, MANTUO CASTILLANO, PEDRO XIMENEZ, MALMSEY, LENOIR, PALOMINO, VERDELHO, TANNAT, PERUNO, VEGA.

And other recently imported varieties, including True Port and Sherry varieties from Spain and Portugal.

GEO. WEST, Stockton, Cal.

TO CLARIFY WINES,

(BOTH WHITE AND RED)

WAHL BROS.**GRANULATED ISINGLASS**

HAS NO EQUAL.

It is SUPERIOR and CHEAPER than any other ISINGLASS in the Market.

Try It. Send for Sample.

JOHN T. CUTTING & CO., Agents.,

23 CALIFORNIA STREET,

San Francisco.

CLARIFYING AND PRESERVING WINES.

The undersigned having been appointed Sole Agents on the Pacific Coast by Messrs. A. BOAKE & CO. Stratford, Eng., for their renowned

LIQUID ALBUMENS,

Beg to call the attention of Wine Growers and Wine Merchants to the following articles, the superior merit of which has been confirmed by Silver Medals, the highest awards given at the International Exhibition of Paris 1878, Bordeaux 1882, and Amsterdam 1883, viz:

**LIQUID ALBUMEN FOR RED WINES,**

Claret, Burgundy and Port.

**LIQUID ALBUMEN FOR WHITE WINES,**

Hock, Sauternes, Sherry and Madeira, also for distilled liquors: Whisky, Gin, etc., etc.

**WINE PRESERVER,**

For Preserving the Brilliancy of the wines.

**WINE CORRECTOR,**

For Correcting the Roughness of Young Wines.

**WINE RESTORER,**

For Restoring Badly Made or Badly Treated, Harsh and Tart Wines.

A trial according to directions will prove the superior qualities of these finings. For sale in quantities to suit by

CHARLES MEINECKE & CO. Sole Agents,

314 SACRAMENTO STREET, SAN FRANCISCO.

The Contest Settled.

The Documents Speak For Themselves.

Below We Publish the Awards as Given, Diploma, Gold Medal and Special Mention.

HIGHEST AWARD

-- AT THE --

New Orleans Exposition

-- TO THE --

ANTISELL PIANOS

-- OF --

SAN FRANCISCO, CAL.

IT WILL INTEREST THE MUSICAL PUBLIC AND persons interested in the purchase of Pianos to read the following Jury's award and congratulation of the United States Commissioners at the New Orleans Exposition to the T. M. Antisell Piano Company of San Francisco, Cal:

THE WORLD'S INDUSTRIAL AND COTTON CENTENNIAL EXPOSITION.

NEW ORLEANS, May 29, 1885. MESSRS. T. M. ANTISELL PIANO CO.,—GENTLEMEN: At the closing of the World's Industrial and Cotton Centennial Exposition, allow us to congratulate you on your success in being awarded the highest award of merit for your Pianos over all American and foreign exhibitors and competitors. That a California manufacturer should win the first prize for the Best Piano in the World we consider well worthy of mention by United States Commissioners of this Exposition.

Frank Bacon, Pres't, M. U. S. Com., Kansas, George L. Shoup, " " Idaho, Robt. W. Furcas, " " Nebraska, John C. Ketter (acting), " " Ohio, R. E. Flemming, United States Com'r, Dakota, John S. Harris, " " Montana, E. W. Allen, " " Oregon, F. M. Murphy, " " Arizona, F. W. Noble, " " Michigan, W. H. Sebring, " " Florida, P. M. Wilson, " " N. Carolina, J. C. Truman, " " New York, E. Spencer Pratt, " " Alabama, C. J. Koche, " " S. Carolina, C. L. Barrow, " " Louisiana, Henry Merrell, " " Wyoming, P. Langhammer, " " New Mexico

THE WORLD'S INDUSTRIAL AND COTTON CENTENNIAL EXPOSITION, NEW ORLEANS.

JURY REPORT

Application No. Special. Group. Class.

COMPETITION.

The undersigned jurors in the above entitled class having carefully examined the exhibit made by the ANTISELL PIANO COMPANY OF SAN FRANCISCO, CAL., and all competing exhibits, concur in recommending the award of a FIRST-CLASS MEDAL AND DIPLOMA, THE HIGHEST AWARD OF MERIT FOR PIANO EXHIBIT FOR STRENGTH, DURABILITY, EXCELLENCE OF TONE, AND FOR THE SUPERIOR QUALITY OF LUMBER USED IN THE CONSTRUCTION.

Dated this 27th day of May, 1885.

JAS. C. TRUMAN, FRANK BACON, J. Jurors, GEO. L. SHOUP,)

It will be observed that the President of the United States Board of Commissioners, Governor Bacon of Kansas, was also a member of the jury that gave the Antisell piano award; also Colonel Truman of New York and Colonel Shoup of Idaho. These gentlemen not only signed our jury report, but also the special mention. We thus give positive proof of our victory. Four other awards are claimed by piano manufacturers, but we have never seen any evidence of their premiums, not even to the value of a leather medal—simply their own assertion. False telegrams and publications from New York won't humbug Californians. It won't do to say that the Antisell pianos were not entered for exhibition or competition. No piano could be got into the exhibition unless regularly entered. New York manufacturers are trying to break down our awards, as they don't like to see San Francisco carry off the honors.

T. M. Antisell Piano Co.

24 to 28 ELLIS ST., S. F.

HONOLULU CASTLE & COOKE, SHIPPING AND

COMMISSION MERCHANTS

Honolulu, Hawaiian Islands.

—AGENTS FOR—

THE KOHALA SUGAR CO.,
THE HAIKU SUGAR CO.,
THE PAPAIAKU SUGAR PLANTATION
THE WAIALUA SUGAR PLANTATION
THE PAIA PLANTATION
A. H. SMITH & CO.,
THE N. E. M. LIFE INSURANCE
CO. BOSTON,
THE UNION INSURANCE CO.
OF SAN FRANCISCO,
THE GEO. F. BLAKE MFG CO.,
STEAM AND VACUUM PUMPS,
D. M. WESTON'S CENTRIFUGAL
MACHINES.

WM. G. IRWIN & CO.

SUGAR FACTORS AND

COMMISSION AGENTS

Honolulu, H. I.

—AGENTS FOR—

HAKALAU PLANTATION.....Hawaii
NAALEHU PLANTATION.....Hawaii
HONCAPO PLANTATION.....Hawaii
HILEA PLANTATION.....Hawaii
STAR MILLS.....Hawaii
HAWAIIAN COMFL & SUGAR CO.....Maui
MAKEE PLANTATION.....Maui
WAIHEE PLANTATION.....Maui
MAKEE SUGAR CO.....Kaua
KEALIA PLANTATION.....Kaua

Agents for the

OCEANIC STEAMSHIP COMPANY.

WINE WANTED.

Having more orders than we can fill, we offer our services as

AGENTS

—FOR—

PRODUCERS ONLY.

CORDELIA WINE COMPANY,

969 MISSION STREET, San Francisco.

ANGLO-NEVADA
Assurance Corporation

—OF—

SAN FRANCISCO, CAL.
FIRE and MARINE.

Subscribed Capital \$2,000,000.

OFFICE: 410 PINE ST.

DIRECTORS:

LOUIS SLOSS, J. W. MACKAY,
J. B. HAGGIN, W. F. WHITIER,
J. ROSENFELD, E. E. EYRE,
J. L. FLOOD, E. L. GRIFFITH,
G. L. BRANDER, J. GREENEBAUM,
W. H. DIMOND.

This Corporation is now prepared to receive applications for Fire and Marine Insurance.

G. L. BRANDER.....President
J. L. FLOOD.....Vice-President
C. P. FARNFIELD.....Secretary
J. S. ANGUS.....Assistant Manager

Bankers, The Nevada Bank of San Francisco



THE SOUTHERN PACIFIC CO.,

Respectfully invites the attention of TOURISTS AND PLEASURE SEEKERS to the SUPERIOR FACILITIES afforded by the Northern Division of its line for reaching the principal

SUMMER AND WINTER RESORTS OF CALIFORNIA WITH SPEED, SAFETY AND COMFORT.

Pescadero, Menlo Park, Santa Clara, San Jose, Madrone Mineral Springs, Gilroy Hot Springs.

-MONTEREY-

THE QUEEN OF AMERICAN WATERWAYS

Camp Goodall, Aptos, Loma Prieta, Monte Aistia, New Brighton, Sequoia, Camp Capitola, and

SANTA CRUZ.

PARAISO HOT SPRINGS.

EL PASO DE ROBLES

HOT AND COLD SULPHUR SPRINGS.

And the only Natural Mud Baths in the World.

This Road runs through one of the richest and most fertile sections of California, and is the only line traversing the famous Santa Clara Valley, celebrated for its productivity, and the picturesque and park-like character of its scenery; as also the beautiful San Benito, Pajaro and Salinas Valleys, the most flourishing agricultural sections of the Pacific Coast.

Along the entire route of the "Northern Division" the tourist will meet with a succession of extensive Farms, Delightful Suburban Homes, Beautiful Gardens, Immense Orchards and Vineyards, and Lush and Fertile Fields of Grain; indeed a continuous panorama of enchanting Mountain, Valley and Coast scenery is presented to the view.

Characteristics of this Line:

GOOD ROAD-BED.....STEEL RAILS.....ELEGANT CARS,
LOW RATES.....FAST TIME.....FINE SCENERY.

TICKET OFFICES—Passenger Depot, Townsend street, Valencia St. Station, and No. 613 Market Street, Grand Hotel.

A. C. BASSETT, H. R. JUDAH,
Superintendent, Asst. Pass. and Tkt. Agt.

S. P. COMPANY.

QUICK TIME AND CHEAP FARES

To Eastern and European Cities

Via the Great Transcontinental All Rail Routes

SOUTHERN PACIFIC COMPANY.

(PACIFIC SYSTEM)

Day Express and Emigrant Trains make prompt connections with the several Railway Lines in the East.

CONNECTING AT

NEW YORK AND NEW ORLEANS

with the several Steamer Lines to

ALL EUROPEAN PORTS.

PULLMAN PALACE SLEEPING CARS

attached to Overland Express Trains.

THIRD-CLASS SLEEPING CARS

are run daily with Overland Emigrant Trains.

No additional charge for Berths in Third-class Cars.

227 Tickets sold, Sleeping-car Berths secured, and other information given upon application at the Company's Office, where passengers calling in person can secure choice of routes, etc.

Railroad Lands

FOR SALE ON REASONABLE TERMS.

Apply to, or address,

W. H. MILLS, JEROME MAIDEN,
Land Agent, Land Agent,
C. P. R. R. SAN FRANCISCO, S. F. R. R. SAN FRANCISCO

A. N. TOWNE, T. H. GOODMAN,
General Manager, Gen. Pass. & Tkt. Agt.,
SAN FRANCISCO, CAL.

REWARD OF \$10 TO EVERY PERSON sending us valuable information of school vacancies and needs. No trouble or expense. Send stamp for circulars to CHICAGO SCHOOL AGENCY, 185 South Clark Street, Chicago, Ill. N. B. We want all kinds of Teachers for Schools and Families.

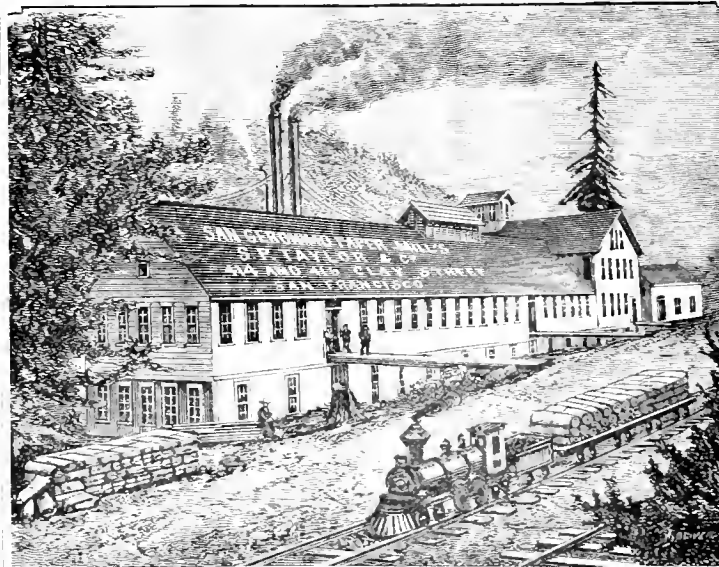
1856.

PAPER.

1886.

S. P. TAYLOR & CO.

Manufacturers of and Dealers in Paper of all kinds.



Book, News, Manila, Hardware, Straw and Tissue

PAPERS.

Paper Bags, Twines, Etc., Etc.

PRINTED WRAPPERS A SPECIALTY.

Proprietors Pioneer and San Geronimo Mills. Agents for South Coast (Straw) Mills.

414 and 416 CLAY ST., SAN FRANCISCO.

SHIPPING.

OCEANIC STEAMSHIP COMPANY.

Carrying the United States, Hawaiian and Colonial mails for

HONOLULU,

AUCKLAND.

and SYDNEY

WITHOUT CHANGE.

The splendid new 3,000-ton Steamer



MARAROA

Will leave the Company's wharf, corner Stewart and Folson streets,

SATURDAY, JULY 3d at 2 P. M.

Or immediately on arrival of the English mails.

FOR HONOLULU AND RETURN

The Steamer

AUSTRALIA.....Thursday, July 16th

For freight or passage apply at office, 327 Market St

JOHN B. SPRECKELS & BROS.,

General Agents.

OCCIDENTAL & ORIENTAL STEAMSHIP COMPANY.

for JAPAN AND CHINA.

Steamers leave Wharf corner First and Brannan sts. at 2 o'clock, P. M., for

YOKOHAMA AND HONGKONG.

Connecting at Yokohama with steamers for Shanghai,

1886.

STEAMER. FROM SAN FRANCISCO.

GAELIC.....SATURDAY, JULY, 10th

BELOP.....SATURDAY, JULY 31st

SAN PABLO.....SATURDAY, AUGUST 21st

OCEANIC.....THURSDAY, SEPT. 11th

GAELIC.....TUESDAY, OCTOBER 19th

SAN PABLO.....TUESDAY, NOVEMBER 9th

OCEANIC.....WEDNESDAY, DEC. 1st

GAELIC.....TUESDAY, DECEMBER 21st

EXCURSION TICKETS to Yokohama and return at reduced rates.

Cabin plans on exhibition and Passage Tickets for sale at C. P. R. Company's General Office, Room 74, corner Fourth and Townsend streets.

For freight apply to GEO. H. RICE, Freight Agent, at the Pacific Mail Steamship Company's Wharf, or at No. 202 Market street, Union Block.

T. H. GOODMAN Gen. Passenger Agent.
LELAND STANFORD President.

SPRAY PUMPS.

Fruit Growers, Farmers, and all desiring to purchase a Spray Pump that is far ahead of all others in the market, as it is the ONLY Pump made with all metal valves, should buy the "CLIMAX SPRAY PUMP," all complete with tube, spray nozzle, plain nozzle, galvanized iron can, six feet of best Rubber Hose; capacity, 8 gallons; all ready to use. Price, \$15.00. Good Agents wanted at once. Send for Circulars 211 California St., San Francisco, Cal.

FRED'K WM. LUTTGEN,

COMMISSION MERCHANT.

(P. O. BOX 829) 51 Warren St., New York.

Solicits consignments of California Produce, and orders for the purchase of Merchandise, generally. Eastern Agent for Eclipse Champagne.

JAMES HUNTER

GAUGER OF WINES AND SPIRITS.

(Established 1851.)

OFFICE—323 FRONT STREET,

San Francisco.



IMPORTERS OF ALL KINDS OF

Printing and Wrapping Papers.

401 & 403 SANSOME ST., S. F.

THE FRANCISCO SAN FRANCISCO MERCHANT.

THE ONLY VITICULTURAL PAPER IN THE STATE.

Devoted to Viticulture, Olive Culture, and other Productions, Manufactures and Commerce of the Pacific Coast.

VOL. XVI, NO. 7.

SAN FRANCISCO, JULY 16, 1886.

PRICE 15 CENTS

VITICULTURE AS A NATIONAL INDUSTRY.

Address by Hon Norman J. Coleman

(New York Wine and Fruit Grower)

MR. PRESIDENT AND GENTLEMEN OF THE NATIONAL VITICULTURAL ASSOCIATION: In accepting an invitation to address this Convention on viticulture as a national industry, I did it more readily, because for many years of my life, I have been a practical grape-grower, and appreciate the value of grapes, not only as one of the choicest luxuries given by the Creator to man, but as an article of food it has few equals, and even for medicinal purposes it is highly recommended, grape cures being common in France and Germany, and are attended with the best sanitary results.

It has been demonstrated that grapes can be grown everywhere in this broad land, and every one who calls an acre of ground or a town lot his own, ought to grow them, if only a few vines. They will embellish his home, and yield their grateful fruit, fresher and more appetizing than such as he can buy. Those who are not in a condition, however, to grow them, should be supplied with them by a good market for a long period, say from July, to March, for with the improvements we have already made in varieties, with the diversity of climate we can command, and with the cheap transportation that we ought to secure, we shall all be brought into closer international relationship and enjoy the products of all portions of our common country. In California grapes can now be grown, harvested, and packed for transportation at \$40 per ton, at a good profit, and the railroads from the Golden State have found it to their interest to reduce transportation to less than 2 cents per pound to an Eastern market, on fast time, so that they can be laid down at our doors, if not now, yet in the near future, at 5 cents per pound—a healthful, nutritious article of diet to be enjoyed more than half of the months of the year. Other sections nearer by can profitably produce them at this price, and every man, woman and child can indulge in fresh grapes, and partially subsist upon them, and as cheaply as upon any other article of diet. In this nation of dispeptics we need more fruit, and we expect to see, in the no distant future, grape cures in this country from New York to California, and as well attended as in Europe.

There is no good reason, indeed, why the pure juice of the grape may not be enjoyed every day of the year, for it may be expressed and kept in a cool place, below the temperature of fermentation, and thus partaken at all times. This plan has lately been adopted by a New York firm with the most satisfactory results, and we expect to see it followed by others, so that the always welcome juice of the grape may form a part of our daily diet.

But it was not so much the consideration of the importance of the grape in connection with its dietary and domestic uses as in the manufacture of pure American wines, and the protection of them from adulterated compounds, that this national Convention was called. As a nation, we may well feel proud of what we have accomplished in the last fifty years, dating back to the early beginnings at Cincinnati and other sections. We can produce wines even now which can enter into competition with the choicest vintages of Europe, where wine-making has been followed for thousands of years, and has been fostered and encouraged by Government aid. Here the industry has had to take care of itself, and it has grown up and made its way by the simple pluck and energy of its followers. Not only this, but we have had our best brands presented to the public under French and other foreign labels, and only the indifferent ones presented as American wines. But we have grown strong enough now to insist on our rights, and to stand on our own merits. And to promote this new order of things, this National Viticultural Convention has been called. We claim admittance and recognition among the nations of the earth as a wine producing country, the fairest and greatest the Creator has made. We are the rivals and successful competitors in the greatest markets of the world, with almost every other product of industry and skill, agricultural and mechanical. We also want to be in the cause of true temperance. We want to furnish the nation with the cheapest, the most wholesome and beneficial beverage—pure wine from the grape. We want to give the American people American wine, if they use wine at all, without fortification or adulteration. Americans ought to drop the false pride which causes them to think that they ought to have something "far-fetched and dear bought" when at the festive board. They should encourage home industry, discard

French labels and French prices for home products, when thorough trial has proven American products the superior.

It is true France has been and is still the foremost nation in wine production, yielding formerly more than half, now exceeding a third of the production of the world. France, Italy, Spain and Austria produce more than nine-tenths of the wine of the civilized world.

The returns of production and distribution in France and in the country have a striking significance at the present time. The area and rate of yield have both fallen away in France, and the extension of vineyards is the rule in America, while the yield per acre is larger here, the market increasing as wine displaces the more spirituous beverages, as the home population increases, and the taste for American vintages makes its way abroad. Yet the contrast presented by these classes of home and foreign facts is very great.

FRENCH DECADENCE.

For ten years, 1871 to 1880, the average area in vineyards in France was 5,831,272 acres, and the product 1,340,000,000 gallons. In the four years from 1881 to 1884 inclusive, the area has averaged only 5,357,500 acres, and the product has fallen to 1,040,000,000 gallons. The productions, which were at the rate of 240 gallons per acre between 1861 and 1870, and 230 between 1871 and 1880, has for four years been only 194 gallons per acre. It is a decrease of 22 per cent. The causes are well known, due to the presence of the phylloxera, and to fungus parasites of the vine. While unremitting and comparatively successful effort, in investigation and in application of remedial measures, has been continued with vigor and determination and the aid of the Government, there appears to be little prospect at present that France can supply the wants of commerce in wines. In the Southwest, especially, the ravages of phylloxera and mildews are persistent and progressive. The year 1885, instead of indicating recovery of the industry, shows a reduction of about half a million acres in vineyards, and 185,000,000 gallons in the product.

There is another view of French decadence in wine production that is instructive and significant. The great wine growing nation fails to produce a home supply. Its imports of wine are much greater than its exports. Not as a wine seller, but as a

wine buyer, appears at present this country of vineyards. Already a customer of American vineyardists, the trade promises immense expansion in the future. Between 1861 and 1870 the average excess of French exports over imports was about 63,000,000 gallons per annum, or three times the present American product. The annual average for the next decade was 45,000,000 gallons. Since 1879 the imports have exceeded the exports, and France has for six years failed to produce enough for home consumption. This consumption averaged thirty-five gallons per capita between 1861 and 1880, and thirty-two gallons in the four years following 1880. The price, varying with the supply, averaged about 22 cents per gallon, and for ten years prior to 1880 about 24 cents, but the decline in production advanced prices in 1880 and 1881 about 40 per cent. This may have reduced consumption somewhat, and the manufacture of imitation wines from fruits and spirits may have had an important part in replacing this loss of consumption of the genuine article. It is stated that the production of wines from the skins of grapes and sweetened water, and from raisins, amounted last year to 105,000,000 gallons. How much imitation is obtained from water and spirits is not reported. The increase in cider was more than 200,000,000 gallons over the product of the previous year. These facts of diminished product and increase in value, show that France is not only unable now to export, but finds it difficult to meet the home demand for consumption, having imported 115,000,000 gallons more than her exports—four or five times as much as the entire production of this country.

OUR WINE IMPORTS.

The imports of wine at the present time are due to the force of habit, and to acquired tastes for foreign vintages. There is a little of positively fine quality yet introduced, but it is the belief of persons qualified to judge, that a part at least of the imported wines are inferior in purity and quality to our California product. It is certain that California products have been sought in foreign markets, and almost equally certain that some have returned, either unmixured or manufactured, under a foreign name.

▲ If this be true, it is evident that time and use will educate the taste for native wines, and that importation will decline, exporta-

tion advance by rapid strides, keeping at home the money paid for foreign vintages, which amounted to over \$7,000,000 per annum in the last five years, and bringing a still larger annual revenue from the export trade.

An analysis of our imports shows that decline of importation has been rapid of late. For example, the imports in casks, which amounted to over 4,000,000 gallons per annum from 1881 to 1883, were reduced by more than a million gallons in 1884 and 1885. In three years their cost was \$9,813,619; in the last two years only \$1,221,635. The imports of wine in bottles has also declined, but not in like proportion—a result which may be expected in view of an opinion expressed in the Paris daily agricultural journal (*L'Echo Agricole*) of March 3rd, viz: "The champagne of California is not to be despised, and they begin to send it all over America, where it is the more appreciated, as the larger part of that received from Europe is only a detestable imitation."

The larger part of our imports come from France, amounting in five years to \$20,000,000 out of a total of \$36,000,000. Nearly four-fifths of the value of French receipts is for wine in bottles. The recent reduction in receipts in cask wines is mainly in French products. The average from 1881 to 1883 was 2,190,905 gallons per annum; that of the last two years only 1,007,194, a decline of more than one-half.

It is well to inquire what facilities are enjoyed in this country for the establishment of a great national wine industry. The abundance and vigor of native vines found everywhere growing wild in the forest by the first settlers of America, raised high expectation of the possibilities of wine production in this country. It is stated that Ralph Lane, the head of a colony in Virginia, wrote to England in 1583 that he had found in that country "grapes of such greatness, yet wilde, as France, Spaine, nor Italie have no greater." The vines of France were imported, experimental vineyards were planted, to fail utterly from the ravages of mildew. Foreigners assumed that the failure was due to want of practical knowledge of vine growing, and new experiments were tried, to fail as before. It soon became apparent to growers of judgment and experience that the difficulty in the way of growing foreign vine grapes was climatic; that while under the protection of glass they might succeed, they could not be grown in the open air. The leaves were too delicate, the plant lacking in hardiness to withstand the extremes of temperature and moisture of the climate of the Atlantic Coast.

Attention was turned to the improvement of our native grapes. Seedlings were originated, hybridization with foreign vines attempted, with great industry and patience, and with marked success. The manufacture of wines from these new varieties called forth renewed effort, and developed skill that has measurably triumphed over great difficulties. The popularization of these wines, requiring the development of tastes of those who have acquired a preference for certain foreign vintages, is a work of difficulty entirely independent of the qualities of the native product, and the perfection of processes in its manufacture.

But the resources of our continental domain are not restricted to the native vines—to the Sumner grape, the Frost grape, the Fox grape, the Scuppernon, etc., great as are the possibilities only partially re-

vealed in scores of valuable varieties of these families—as there is a vast area on the Pacific slope in which the European vines flourish to perfection, and where hundreds of varieties of them have already been tested. There the climate is especially propitious, and the soil is peculiarly adapted to the production of far greater crops than those of sunny France. This wealth of differentiation, botanical, geological and meteorological, favorable to variety of vineyard products, promises to make this country the superior of any in the world in grape growing and wine production.

EXTENT OF OUR PRODUCTION.

Our production is small at present, rarely exceeding 20,000,000 gallons as yet, and about half of this is made on the Pacific Coast. Like other crops, grapes are variable in yield per acre, according to the vicissitudes of the season. California has rapidly increased in vineyard area of late, until 15,000,000, and even 20,000,000 gallons of wine per annum, are already deemed a possibility. Last year such expectations were not realized, owing to an unfavorable season, but the product has been estimated at 8,000,000 to 9,000,000 gallons.

The wine makers of California have studied European methods, employed European experts, and spared no pains nor expense to secure the highest attainable success; and it is fair to say that they have achieved as much as could possibly be expected in the limited time in which this education has been perfected. The future of vineyard culture in this country is assured. Success is sure to follow the effort to make the United States independent of foreign countries in all products of the vine, and an increase of exportation is equally certain, to supply deficiency of foreign production, and to satisfy the preference for peculiar and characteristic products, which must inevitably be a stimulus to our future foreign trade.

THE RAISIN INDUSTRY.

The best raisin grapes of Europe grow with vigor and produce in great abundance in California. Ten years ago the industry was fairly initiated, and raisins equal to the best London layers were produced, as the highest product of the most advanced practice, though the average quality then was not equal to the average of recent crops. It is probable that the greatness of the future of this industry may not be generally appreciated. It has already become an important source of rural revenue, and the product is rapidly increasing. The requirements of nearly sixty millions of people must be met by the Pacific slope, or by foreign countries. The demand will increase with the abundance of the supply. The home production, considerable as it is, does not reduce importation, does not even keep it stationary. The importation of ten years, 1871 to 1880, averaged 33,731,861 pounds per annum, and cost \$2,292,216 annually; but the imports of the past five years have averaged 46,275,473 pounds, and cost \$3,246,723 per annum. The imports have increased annually since 1875, except in 1885, and the cost of imports have increased annually from 1878 to 1885. Even now the home product is scarcely 15 per cent of the supply. Ten times the present production should be attained within the next ten years. It is not only in California, but in New Mexico, Arizona and probably in portions of Texas, that raisin grapes may be produced: and it is not

unreasonable to hope that this nation in the not distant future may be a large exporter of this delicious edible.

THE OUTLOOK.

Present conditions affecting vineyard husbandry are favorable, and the outlook cheering. There is to be a great future for this industry. Every indication points to it. This is a nation of fruit-eaters. The climate demands the corrective influences of fruits in the national dietary. The wines of our wide variety of foreign and native vines are excluding the swindling imitations of once famous vintages, and demanding recognition in foreign countries. The brandies of California are pure and infinitely superior to the detestable concoctions that bear foreign brands, and are marked with prices that are at once a means of deception and a source of fraudulent income. It is the statement of M. Girard, chief of the Municipal Laboratory of Paris, that forty years ago seven-eighths of the brandy manufactured was pure; but that of 50,000,000 gallons now produced annually, not one per cent of it is from grapes—grain, beets, potatoes, etc., being its principal sources. In view of this statement—this fact, as it is recognized to be—what folly it is to discriminate against native production, and endanger the public health to gratify a sentimental recollection of the virtues of the primitive Cognac.

ADULTERATIONS OF WINE.

A few words on the adulterations of wine may not be out of place. Chemically considered, pure wine is the fermented juice of the grape. The constituents of a pure wine may therefore vary through a wide range, depending on the kind of grape employed, the character of the fermentation, and the nature of the manipulation to which it is subjected. In addition to this, the properties of a wine are greatly influenced by the operations to which the new wine is subjected, the method of its preservation, its subsequent treatment, and the temperature of the cellar in which it is kept.

The expressed juice of the grape contains grape sugar, fruit sugar and mesite, in all amounting to 20 or 30 per cent of the whole. It also contains from .2 to .8 per cent of albuminous matters, which under the influence of special organisms, give rise to vigorous fermentations.

In addition to this the must contains pectine and some other viscons substances: some elements not well known, and called "extractive matter," and containing the odorous and coloring matters of the wine; some organic acids, viz: tartaric and malic; some inorganic acids, viz: silicic, phosphoric and hydrochloric, combined with calcium, potassium, magnesium, iron and manganese. When tannic acid is found, it comes from the skins and other solids of the grape; it is not found in the juice.

The chief effect of the fermentation consists in transforming a part of the sugar into alcohol and carbonic acid. In addition to these there are produced by fermentation small quantities of succinic acid, glycerine, fatty bodies and cellulose.

The small quantity of sugar left by the first fermentation tends to disappear with time, giving rise to new quantities of alcohol and carbonic acid.

Meanwhile the insoluble substances are precipitated, the acidity diminished, the bouquet appears, and the wine is rendered palatable.

Then the juice of the grape, as is often the case, does not contain a large per-

centage of sugar, and does contain an unusually large percentage of acid. It becomes necessary to diminish the latter and increase the former, in order to make a palatable wine. This process (called by the French "Chaptalization," from Chaptal, its inventor,) consists in adding to the must marble dust, to neutralize a portion of the free acid; and sugar, to increase the percentage of alcohol. Chaptal used for this purpose cane or beet sugar, but this is often replaced by the sugar of starch or so-called "grape sugar."

Dr. Ludwig Gall has invented a modification of the above process, which is known as "Gallization," and in which water is also added, and thus the total quantity of the wine increased. According to Gall, musts of good quality contain: sugar, 24 per cent.; water, 75.4; acid, .6. A must of mean quality contains: sugar, 20 per cent.; water, 79.5; acid, .5. In the process of Gallization, the object to be attained is to reduce all musts to this latter type. Thus if a natural must of poor quality contains for each 100 parts, sugar 10 parts, water 89.2, acid .8, it can be reduced approximately to the normal standard by adding water 70 parts, and sugar 30 parts and the resulting solution will contain of sugar, 20 per cent.; water, 76.6; acid, .4; and the quantity of wine produced will be doubled.

PETIOTIZATION.

Petiot has invented a process of manufacturing a second wine from the pomace, by treating the latter with water containing in solution a proper amount of sugar. Much of the bi-tartrate of potassium, of the coloring and odoriferous matters, and of the tannin, remains in the pomace after the expression of the juice, and this is secured by the treatment above mentioned. The wine thus made is usually sour, and is known as Piquette.

In France, Petiotization is practised on a large scale, and this is the explanation of the enormous quantities of wine known as Bordeaux, and which is sold so cheaply in all parts of the world.

The above processes in the manufacture of wine have become so common, that they are no longer regarded as processes of adulteration; and yet, strictly speaking, they should be placed in that category. I have yet to consider some of the processes clearly fraudulent, by which purely artificial wines are fabricated, or pure wines so altered as to become clearly artificial. Formerly the adulterations were so clumsily practiced, that it was not difficult to detect them; but the falsifiers have so kept pace with the progress of modern chemistry, that even wine-tasters, experts, and chemists hesitate to judge them. In general, it may be said that the adulteration of wine consists in the addition of any substance whatever, with a view to profit.

By far the most important and widely practiced adulteration, consists in what the French call "Mouillage." This consists in adding water to the wine, and then alcohol to raise the alcoholic content to the mean of good wines. In case the color of the wine is weakened too much by this process, it is restored by the addition of fuchsine, or some other appropriate coloring matter. On the other hand, the fraud may also be detected by the decrease of the "extractive matter," which may fall from thirty to fifteen parts per thousand. The amount of ash will also be proportionately diminished. In the Municipal Laboratory in Paris, the basis of comparison for Mouillage is fixed at a mean of 12 per cent,

alcohol and 24 parts per thousand of extractive matter for a normal wine.

SCHLEISAGE.

The addition of glycerine is practiced to make the wine mild, to give it body, and assist in its preservation. The addition of glycerine also serves to conceal to a certain extent the absence of extract. The normal content of glycerine in wines is about six parts per thousand. The introduction of a quantity of glycerine into the system does not seem to be without injurious results. It has been shown that it increases the quantity of carbonic acid exhaled, and very notably decreases the excretion of urea. In animals, uræmia has been produced by large and continued use of glycerine. It is therefore one of those adulterations which must be regarded as prejudicial to health.

LITHARGE.

The oxide of lead is sometimes added to wine to mask its sourness. In the wine it is converted into acetate of lead, which has an extensively sweet taste. Wine treated in this way is a veritable poison. Alum and common salt are also adulterations added to wine.

PLATRAGE.

Sulphate of potassium is added to watered wines for the purpose of restoring the potash present in natural wines as bitartrate. It makes but a poor substitute for the natural salt.

SALICYLIC ACID.

The employment of salicylic acid has lately come into use, especially with the object of defrauding the revenue. It is well known that this acid has the power of arresting for a considerable time the process of fermentation, although it does not destroy the ferment germ. After a time this again becomes active, and the production of alcohol is recommenced. It follows, therefore, that to a new wine, only partially fermented, sugar and salicylic acid can be added, and the wine subjected to taxation in this condition. Afterward the fermentation will again begin, large quantities of alcohol will be produced, and the percentage of this be reduced to the mean by the addition of water. The additional quantity of wine thus made would naturally pass into commerce without having been subjected to any tax. Owing to the evil effects of this acid on the system, its use in all alimentary substances has been forbidden in France.

COLORING MATTERS.

The coloring matters added to wine are either natural pigments taken from the animal or vegetable kingdoms, or artificial ones manufactured from coal tar. Among the more important of these coloring matters may be mentioned, in the first class, cochineal; and in the second, rosaniline or fuchsine, eosine and alizarine for red colors, dimethylaniline for orange, and picric acid and fluoresceine for yellow. The detection of foreign coloring matters is a work of great delicacy, and can only be entrusted to chemical experts.

I have thus briefly touched on the more important adulterations to which wines are subjected, both on account of the growing value of viticulture in this country, and the extensive frauds which are practiced on us by the falsifiers of imported wines. Those who use our native wines should at least be certain that they are real wines. It is true that some of the substances used as adulterants are not injurious to health, but they are more or less injurious to legitimate viticulture.

CLOSING ADDRESS.

President Wetmore's Remarks at the National Viticultural Convention.

(New York Wine and Fruit Grower.)

Mr. Wetmore said: Gentlemen and Members of the Convention: As you are aware, I have been very busy night and day, and have had no time to put any remarks in writing, and I am very sorry for that, for in talking extempore a person is apt to wander from his subject; but I will try to keep you a few moments touching a point or two on subjects that ought properly to come home to you. I want to congratulate the Convention, not in the usual complimentary manner, but in good faith, upon the success of this effort. It has been a complete success in every respect, and has satisfied the wishes and desires of those who have been foremost in promoting its organization.

The main work of the Convention was accomplished when we organized; the discussions that have followed are things that we can follow up at any time in the future; in fact, we could keep this Convention going every day in the year and get probably a fresh discussion, but in organizing we have really accomplished the main purpose of the original projectors, the result of which will be to banish local prejudice out of our work, and constitute us a body of men engaged in a National industry. [Applause.] I use the words "National Industry" because I am the father of it here in Washington, and it was necessary to instill in the minds of the people the idea that this industry was National, and that when Congress undertook to treat upon it they should not treat it as sectional. I have heard conventions, or I have heard of conventions, and read reports of conventions of certain people devoted to certain ideas that they considered necessary to propagate, where our people in California have been referred to in such expressions as the "Wine-cursed California." I want it to be known that such an expression made in Washington will be resented. The cultivation of the sugar-cane and wheat, the cultivation of grain, the production of butter, the rearing of cattle, are considered National Industries, and so referred to, and within the grasp of the Governmental mind, and proper subjects for its care. The National Agricultural Bureau is in effect a National Agricultural College; all the industries that are there must be National Industries, and the Commissioner of Agriculture has done that which has never been done before—recognized ours as a National Industry. [Applause.] And when we appear in Congress asking anything in our behalf, we must demand that respect which comes from the fact that the industry is something worthy of the attention of the Government itself, and it must be National to be such. Now we have accomplished in organizing that which is necessary to satisfy Congress that we are not a scattering and sporadic people coming before the country with little local issues, but that we are completely united to present our joint issues in a National form with unity and harmony.

And here I must say one word for the Officers and the Council of this Association that are to do a great deal by correspondence, consultation and otherwise: That it should be understood that while we must work, we must have help, and that every member of the Association shall consider

himself as part of the work of our Council, and to that end it is necessary that they should be loyal to it. If there are objections to any measure that the Council shall see fit to project, let those objections from members of this Association come first to the Council, and not first to a newspaper. Oftentimes we make efforts, and the motives of those making those efforts are misunderstood. As soon as opportunity is given for explanation, the objections vanish, or it may be that the persons have a reason for changing their opinion and submitting to the objections. Let us have a loyal organization, and let us all work together.

There has appeared during the sessions here, as may have been apparent to you, a laudable desire on the part of many of the delegates to speak well of their own local interests and their own homes; such is to be desired, such is to be hoped for. A man who does not love his home better than any other place on earth does not deserve to have a home; and no man who does not love the spot that provides his wife and children with sustenance, has not a grain of what historians call patriotism, and he does not deserve the name of patriot. There is a spirit of provincialism which is the foundation of patriotism; without provincialism there is no patriot. I will illustrate by calling attention to one or two things. In travelling in France, where the most intense patriotism exists, where leaving one's country is expatriation and exile, whenever I asked a Frenchman what country he came from, he thought I meant the Department (like the county of a State), and he replied "My country! that is the Department of Herault." That was his country! That feeling engenders patriotism, because the man who fights for his country is the man who fights for his home and supports it. Now there is nothing wrong in this feeling, provided it does not descend to local prejudice. A man in Bordeaux who makes wine is so proud of his productions that in all conversations he is inclined to belittle other places. He thinks Burgundy is too heavy—goes to the head, not fit to drink. The Burgundy man thinks that Bordeaux wine is not fit to drink—too cool, is not warm enough. The man from the Rhine thinks that he makes the only true wine in the world. That feeling prevails all over the world, and it will prevail in this country. The Virginians will think their wine is the best wine, and it is only to be expected, because they have got to drink it; but such feelings can accomplish nothing. There is no harm in such local respect, but the merchant is not going to pay a man one cent more on account of it. As I have said, there is no danger in this feeling, provided it does not descend to local prejudice and disparaging the efforts of others.

I am glad to see also this very prominent expression of opinion coming from North Carolina, South Carolina and Georgia. All of us can see the object of it. It is not to extol the wines of those countries that these gentlemen have spoken—it is to excite a desire to inquire into the possibilities of their districts as homes for the people. They might as well say it positively and it is uttered in good faith, for they know when they get more vine growers they have got more good citizens—for the vine growers are always true to the people, and always true to the country, everywhere in the world; and they make an attempt to divert a portion of those engaged in viticulture in other communities

to their districts, and if they can get some of them from California—why, they are welcome.

The objects of our industry should be kept clear in the mind. Mr. Arnaud in his communication stated many of them clearly, but of course writing from a local standpoint, thinking all the time of Bordeaux and Virginia. That is the standpoint that each one must take in discussing his own interest, his local interest. He must think from his standpoint. The objects of viticulture are products, and the object of products is to get a revenue, and at the same time satisfy that price which is in every man, that his industry shall not be a punishment to him in this world, but that it shall be a pleasure. The vine grower is everywhere fascinated with his work, especially if he has all the departments of it under one head. If the vine grower is the wine maker, he is interested from childhood to the death—his child is very seldom offered to the public unless he is peculiarly pressed and can't help it. The objects, therefore, are products, and the object of the products is revenue; consequently everything is eminently practical, while there is plenty of room for sentiment, and the most practical that can be done in any community is the thing to be done; that is the best advice that can be given to every vine grower—the best you can do is the thing for you to do, is the best advice I can give. The question of quantity will affect the market, and very materially; and when the quantity is large enough, so that we may seek foreign markets (which is in effect temporary over-production so far as the home market is concerned), the home market will demand the best we have got. The merchants won't buy of us unless they can get the best—and the question of quality sooner or later will control you; so that, as I said before, the best thing that each district can do is the thing for it to do, regardless of the desire to do something else; and don't be deceived by temporary success, and call to your aid some expert testimony in judgment of your wine, and never undertake to judge your own children. You never gain anything by judging them yourself; let the market, let the public, the interested public, judge them.

The object, therefore, being pecuniary advantage in the end, and profit to the producer, by this condition of affairs you must decide on the best thing, and if you are not able to do it, you must experiment.

Let us be modest in expressing our opinion in comparison with experience with the world, but don't let us be deceived by apparent successes elsewhere, and attempt things when all the conditions are different. It is useless for us to take Bordeaux as our model for wine making in Virginia, when we cannot raise a single vine in Virginia that they can raise in Bordeaux, and you haven't the laborers here that you have in Bordeaux. You have got to learn everything, and, in learning it, you can get very little from any country, because you are beginning to build up a race of grapes; you can learn very little except general principles.

Mr. Arnaud has stated one thing in which he is right, the effort of cultivation should be to correct defects in the results. For instance, I have seen wines which had no sugar but what they got from the grocery-store. It is known to be true, that you can influence the sugar contained in grapes by the method of culture. It is not necessary for me now

to go into details. I believe that nine-tenths of the defects that are now known to exist in American wines, so far as they are utilized for wine-making, laying aside all question of quality of the result, are due to a want of proper knowledge in the cultivation and care of the vine itself, or by the selection of the soil it grows upon. It is useless for us to attempt to claim that every one that has a vineyard, is in the right place; lots of them are in the wrong place, because we are not to pretend that every acre of land in the United States is fit to raise grapes on; it would be useless for us to do so.

Having started in that way, having in view practical results, we may also, when we have time, satisfy a little of our own ambition to be distinguished; and nothing distinguishes a man so much as to make good wine—it makes more friends for him than it does to make a good speech, and it enables him to entertain and please his friends. It gives a man an honest kind of pleasure, and every man takes a pride in making fine wine. Of course the main object is to provide a good, wholesome, palatable beverage for people, which, to be used commonly, must be plentiful, cheap and pure. You never will make a great industry out of this unless the mass of people use it at their meals in place of cold water.

To attain that result, however, you must have plenty of wine, cheap, wholesome; and beyond all, it must be palatable. I use the word palatable because I don't mean to say it must be fine. The mass of wines in the world are simply ordinary wines, sold cheap; and the man who drinks them won't stop to criticize them any more than he does his beer; only it must be a good wine, otherwise the public will reject them. Having that object in view, we need not quarrel about who makes the finest. There is a broad distinction between the words "good" and "fine." "Fine" wines are hardly for our consideration here, as a Convention. They are the outgrowth of that industry. They should not be made prominent in our exhibits. I have seen men discouraged over and over again in California, because some man, who perhaps never drank a drop of fine wine in his life, would say at once, when he tasted one of our wines, "That is not as good as such and such wine." What we want to make is good, every-day wine—good enough for you, good enough for me, good enough for the plowman, good enough for the hod-carrier; and when we have got that clear in our mind, we won't be trying for wines of some impossibly high standard.

I am not going to say a word about the moral of this thing; that has been covered by Mr. Pohndorff in his address. But the position that we must take on the subject—the object that we wish to impress upon all occasions, on every opportunity—is that the wine-drinker is uncompromisingly opposed to drunkenness, applause and dissipation, and that his entire inducement is in favor of temperate habits, applause; but that at the same time his entire inducement is to protect himself, and exercise his inalienable right—the right to fill himself with that which he pleases.

The next important object is the furnishing of fresh fruits. It is not so important as wine-making, because that must be considered first, the next thing is raisins; and last of all, brandy. In table grapes, we have very little except enough for our own table. Raisins can only come from California. Brandy should always be consid-

ered but an adjunct of our industry. The wine used at the table should always be the most important part of the industry, and should never be subordinated to any other part of it. We should always recognize it wherever we go, and there should not be one drop of distilled spirits in it. Whenever there is a drop of distilled spirits in it, it should always be explained and apologized for.

I want to refer to the frequent advice that is given, and that I would give: "Get the tax taken off brandy." Let every vine grower know this, that the price of alcohol controls the price of wine, and he won't need any, for he knows where his interest lies. The cheaper the distilled spirits, the cheaper you can make the wines, and the more demoralization comes in. There is no demand on the part of our producers on the Pacific Coast who undertake to make brandies, for any reduction of the tax on spirits.

The chief necessities now relate to the market for our product—I mean the immediate pressing one. When some of our Californians have spoken to you about the immense quantities disposed of, it is with a desire to boast. We want the public and the vine growers to work with us; and whether they like it or not, to know that there is a very large increase of the crops relatively to the demand. Now we must look ahead. See this big city: it is a very large city, but there are no cellars here, and we cannot do anything without numerous men in the business—numerous large cellars. We must encourage in every large city and town (I mean those of 4,000 and upwards) the developing of a genuine wine industry by men who will take care of the business, keeping cellars according to the demands of the localities, and not be subject wholly to the capricious demands of a trade that deals in cased wine, or a barrel once in awhile. We must have a genuine wine business built up all over the country. Before, however, the merchant can handle this question for us, we must help to break down that which is our great barrier. It is the custom throughout the United States to treat wine as a luxury, and in many cases I have seen wine makers engaged to that end. So long as it is a luxury, you will never have a large consumption. So long as it is considered only for the rich, and in certain cases for conviviality; so long as wine is considered for conviviality and pleasure only—you will never have a large market. There is hardly a hotel in the United States where wine is sold at the same rate of profit that characterizes the sale of its other foods or drinks. You can get a poor bottle for seventy-five cents; you can get a very miserable Claret for forty cents, and the wine it represents could certainly be manufactured for ninety cents a gallon. We must use all our efforts to have the country rid of these practices. We must make a battle against the hotels; we must demand from them the same treatment that they give other industries; we must compel them by our influence to sell our wine at the same rate of profit that they do milk or tea or coffee.

I find it late, and I won't discuss some other matters that I thought I would do; but in closing the Convention, allow me to thank you all for the courtesy that I have received from you. I mean it sincerely, because very few of you did I know before this time. I find new acquaintances—often dispels great dangers. I remember when I was young, I was afraid of a ghost, and it turned out only to be a cow! I found when we commenced work here, that there was an inclination for one section to work against the other; but we found that we are all in the same boat, and must go to work bailing her out. I heard of a feeling expressed that this Convention was all for California; but that feeling has vanished, and I hope we will all help, and have a true, loyal organization.

Old Friends and New.

The following poem, written by Dr. Chas. Brewer, for the National Viticultural Convention, we clip from the *News-Times*, Vineland, N. J., June 19, 1886:

Heard we all, long ago,
Lay in soft, rhythmic flow,
When "Longfellow sang of the dulcet 'Catawba,'"
Jolly fruit of the vine!
Fount of dear "Auld Lang Syne,"
Lucky "Adium" first tapped in old Maryland's border
Whose rich, luscious tide,
Sweet forth far and wide,
To bounteous bliss, as its current coursed by,
Cottage law, mansion proud;
While each yeoman cheered loud,
"Speed thee on, Fair 'Catawba!' Increase, multiply!"
Buckeye Boy, with love-laden
Strengthened arms to this maiden;
Mad River, in wedlock, the daimel, too, sought her;
Pleasant Valley, sore smitten,
Mocked at "sack and at mitten,"
And, Queen, to his vintage in triumph soon brought
her.
But list! from afar
Float in strains pure and clear,
Joyous psalms in praise of Pacific's rich fountains!
Which laughingly leap
From each crushed luscious heap,
As precious as gold from the hoards of her mountains.
In fountains, in clusters,
Seductions she musters,
In forms as enchanting as Bacchus could fancy.
Perfumed for a lover,
More sweet than sweet clover,
That "Cupid" oft pins on the breast of his "Nancy."
Now we bring you among,
But a plain vintage song,
On Columbia's tide wait it proudly along!
For it smacks of the sod
Which Freedom first trod,
Where Liberty blossomed 'neath patriot blood,
Yea Concord we offer!
Her loyal claims proffer,
As each ruby goblet adds store to the coffers.
And, as brand we the same,
And far herald its fame,
Let us care lest our Freedom be left but in name!
As its nectar we sup,
Heaven-approved in the cup,
Let us claim the prized boon! Sire to son, hold it up!
Let us press it,
Careless it,
Yes, fondly address it
As lover his loved one, and cherish and bless it!
To cheer us,
Endear us,
Tendril-bound, one to other,
As friend bound to friend, as brother to brother.
CHAS. BREWER, M. D.
Vineland, N. J., May 15, 1886.

Wine Legislation.

A Committee called by the Minister of Agriculture of Hungary, for the purpose of framing a law against imitation wines, submitted three points for legislative deliberation.

1. To prohibit the sale of artificial wines. Under this denomination, all wines are comprised which have not been made exclusively of grapes, with or without an addition of sugar or spirit, but are a mixture of water, spirit, tartaric acid, glycerine or lees, or such a mixture added to a natural wine.

2. To punish fraudulent makers by destroying the compound, imprisonment of from 1 to 6 months and a fine of from 1000 to 2000 florins.

3. To authorize the Ministers of Agriculture and Justice to execute this law.—*Dr. Bersch's Wine Journal*, April 1st, 1886.

The *Scientific American* says that wine is the proper drink for Americans. That is both scientific and American. As a matter of temperance and hygiene, wine—good, pure California wine—is so far preferable to whisky that there is no room for discussion of the proposition.—*San Jose Times*.

CALIFORNIA WINES.

How the Pure Article is Blended in New York—Extent of the Frauds in Adulteration and Concotion.

[San Francisco Bulletin.]

It is hoped to prevent the manufacture and sale, in the East, of fraudulent compounds under the guise of pure California wines. Congressional action has been asked and some information has been given to the public concerning the existence of the evil. A gentleman interested in the California wine business in this city, recently visited three establishments in New York, which are engaged in placing compounds on the market, to the detriment of pure California wines. The result of his observations is given about as follows:

"The first establishment I visited I found that they were working under fictitious names and were making fraudulent compounds. I went to the cellar, accompanied by a friend, where the fermenting and manufacturing went on. I noted the capacity of the cellar, etc., then went to the office and there received samples to taste and offers were made to sell me the goods at prices which were named. The pretext was advanced that it was necessary, in order to make a living and meet competition, to manufacture and sell adulterated goods. This is only a pretext. I saw two samples of hock and two samples of claret, called hock A and B and claret A and B, which were offered me at 30 cents and 32½ cents per gallon, four months' time, 4 per cent off for cash, free on board for shipping. The wine seemed to be made of grapes and spoiled raisins and blended with sugar and water and it is difficult to say what else. It would taste like one-half or one-third concotion and the rest good California wine. It would be presentable to a novice, but one accustomed to pure California wine would detect the fraud.

"The second place that I visited with my friend it was claimed that the concern owned California vineyards in Los Angeles county. A traveling agent for the house had called on my friend to sell goods. This concern takes what are termed 'flow wines,' which are made at vinegar factories, and adds acid to the blend with a type of California wines and sells the stuff, free on board, cheaper than we can buy the young wine in the vineyard. At Cleveland, so-called California hock was sold at 40 cents per gallon, and it was better than the so-called Reising sold at 58 cents, free on board, at New York. Both were sold as California goods. Neither contained a proportion to exceed one-eighth of California wine. This concern has several firm names on the road. They have changed their name four times in two or three years. They have little capital employed, because they do not know how long the business will last.

"From the third concern I learned very little, except that they are experimenting to see what they can do. The parties first in the concern experimented and made a failure. They sold out to the new concern with the understanding that they should run about a month and see what can be done. "All brands of California wine are imitated, the sweet wines and dry wines. For every gallon of California wine used there are sold two or three gallons of the blends. The retailer can buy California wine and then buy the blends in the East and use it to suit himself. Some of those concerns buy enough California wine to get a reputation for dealing in California goods. The blends cost about 10 to 12 cents per gallon. They use the ordinary cooperage. It is not marked with any name."

THE WINE BILLS.

WASHINGTON, July 6th.—The Senate Finance Committee to-day considered the question of granting the use of grape spirits free of tax in making sweet wines and fortifying wine for exportation, in accordance with the demands of foreign markets. As the subject was not exhausted during the regular time before the session of the Senate, a special meeting was held at 3 o'clock, lasting one hour and half. The views of the Commissioner of Internal Revenue were expressed by two of his subordinate officers, selected as experts, and were combated by Mr. Wetmore on behalf of the wine growers. Mr. Wilson, representing the Sweet Wine Committee, was also present. The committee in executive session rejected the amendment proposed by the wine growers and directed the measure to be reported, together with the provision extending special bonding privileges to all fruit brandies as an amendment to the Fractional Gallon bill. This action was practically unanimous, although it is believed that one of the members of the committee may oppose the measure in the Senate. The amendment will be reported tomorrow or next day, together with a full statement of the reason for the same, which will be printed for the information of the Senate. This action of the committee, under the circumstances which now seriously blockade legislation, is recognized as a decided recognition of the importance of questions relating to viticulture.

WASHINGTON, July 10.—A winemaker from Peoria, Ill., is here fighting the Sweet Wine bill. He belongs to the class called "high-wine makers," who strengthen wine with corn spirits. These high-wine men are the dealers who are always fighting the legitimate whiskey interests. They find more profit in flavoring alcohol and calling it Bourbon than in keeping the genuine stock for several years till it reaches its finest state. It is not known what influence this high-wine man from Peoria can bring against the Sweet Wine bill. A statement of the exact condition of the Sweet Wine bill shows how precariously this most important measure stands. Early in the session a bill embracing the Sweet Wine and the Spurious Wine bills was introduced in the House and referred to the Committee on Ways and Means. No effort could get it out of that committee, Morrison's tariff measure standing in the way.

Early in the session a bill passed the House providing for the taxation of the fractional part—less than half a gallon—of liquor. This bill was the work of Internal Revenue Commissioner Miller, who was specially interested in its passage. This bill went to the Senate and was referred to the Committee on Commerce, and was reported favorably to the Senate by the committee. Through the influence of Senator Jones, the Fractional Gallon bill was recalled from the committee. Then it was proposed to add the Sweet Wine bill as an amendment to the Fractional Gallon bill. Internal Revenue Commissioner Miller did all in his power to prevent this. Senator Beck was at first opposed to it. John Sherman, who has many high-wine dealers in his State, mildly opposed it also. Beck finally agreed to support it, chiefly because the high-wine men, who are a sort of pirates on the whisky trade of Kentucky, opposed it. After an almost incredible amount of work, the committee voted to add the Sweet Wine bill to the Fractional Gallon bill, as an amendment.

Senator Jones has reported the bill thus amended to the Senate with an exhaustive report. It will most probably pass the Senate and then it will be returned to the House with the request that the Senate amendment be agreed to. Conference will then probably be appointed and the final struggle will then come. The Senate conferees will all favor the amendment, and if the House conferees likewise favor it, the bill will be reported to the House with a recommendation that the amendment be agreed to. The great struggle will be to get members of the House appointed conferees who favor the bill.

The Spurious Wine bill has no chance whatever of coming up this session. At one time it was thought it could be added as an amendment to the Oleomargarine bill in the Senate, but the friends of a tax on oleomargarine are opposed to allowing any amendments to that bill. The worsted men and the tobacco men also want to get amendments on the Oleomargarine bill, but all such efforts will be restricted.

WASHINGTON, July 12.—The report of the Committee on Finance on the amendments proposed to the bill relating to the taxation of fractional parts of a gallon of distilled spirits was presented in the Senate to-day. The committee says, regarding special bonded warehouses for fruit brandies, that owing to the fact that no bonding privileges are extended to the product of apples and peaches, there is not only a great hardship experienced from the levying of an internal revenue tax upon them, but also a great incentive to fraud. "It has been observed, also," the committee says, "that where the tax on spirits intended for consumption is levied and collected at the time the goods are first produced, the excessive cost of the same, owing to the imposition of the tax, causes holders to throw them on the market long before they are matured and fit for use as beverages. It is greatly to the interest not only of the producer and the Government, but also of the consumer, that the amendment should be enacted into a law as means to prevent fraud. It would certainly result in an increase of the public revenue."

Regarding the amendment providing for the use of wine spirits distilled from grapes free of tax in the fortification of sweet wines, the committee says: "The internal revenue tax collected on wine spirits necessarily used in the fortification of sweet wines constitutes in effect a tax upon sweet wines, and represents an increased cost to the producer of about 20 cents a gallon. The sweet wines of this country can be produced and exported and maintain their place in foreign markets in successful competition with similar products of other countries if this internal revenue tax is remitted."

J. M. Graff has ten acres of vines on the Brookside Tract, now in their third year, which have not been affected in the slightest degree by culture. The bunches are all perfect, not a berry having dropped. Other vineyards in the immediate vicinity have suffered as severely as any in the valley. The question at once arises, What is the cause of the escape of this one vineyard? The varieties are Carignan and Mataro. Mr. Graff states, however, that just as the vines were in the blossom, he gave them a heavy sulphuring throwing it over the leaves, when they were wet with dew.—*Livermore Herald*.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

Figs for Market.

D. H. Burnham had on exhibition at the late citrus fair at Riverside, various-sized drums of figs, fruit which he had put up himself in southern California. They attracted the attention of the representative of the *Press and Horticulturist*, who asked information concerning their preparation for market. "Yes," said Mr. Burnham, in answer to an inquiry, "they are white figs, and they are also bleached. The variety is what has been claimed as White Ischia, but I believe it is not that fig at all. It is the only kind that I have been able to put up to my satisfaction, however. Have tried to bleach the dark-skinned figs, but without good results. I have an acre and three-quarters of these so-called White Ischias in bearing, and am propagating a large nursery of them. The trees set full in early spring, but the first crop falls off. It is only the later crop that can be relied upon. In a warmer climate the figs might bear two crops a year. They don't do it here. I begin to pick the fruit the last week in August and finish in two or three weeks—say about the middle of September. As soon as the figs are gathered they are spread upon trays and fumigated with sulphur. The room which I built for this purpose is of brick, 7x8 feet, and can be made airtight. I burn about a quarter of a pound of sulphur in it. I heat the sulphur outside until it is at the burning point, and then set it in the fumigating room. It will not do to introduce a fire into the room, as the heat would injure the fruit. Another reason is that, if the sulphur is burned too rapidly, it generates flour of sulphur, which settles upon the fruit and affects the taste. As soon as the sulphur is burned up the trays are removed and placed in the sun. The second day out the fruit is turned over, and the sixth day it is dry enough to take up. The figs are collected in hundred-pound sacks, tied tightly and placed in a close room. Here they remain two or three weeks and go through a sweating process. When removed they are moist and plastic, and, with a pressing machine, are packed tightly in the drums. That is all there is of the process. The first year I sold all my first-class figs at 16 cents a pound in Riverside. Last year I got 20 cents a pound. This was four cents a pound better than imported Smyrnas commanded in the San Francisco market at the time. In 1883 I sold my crop for \$480. After deducting all expenses it left me \$200 an acre clear. The past year the yield was less, but the price better, so I realized about the same."—*Fresno Republican*.

Necessity for Wineries.

(San Francisco Chronicle.)

With the approaching advent of the wine-making season the demand again arises, as it has each year, for the establishment of wine cellars in the grape growing regions, where the owners of small vineyards may dispose of their crops at a fair profit and still leave a margin for the wine maker certain to be amply remunerative for his investment. A number of new wineries are under way in several localities, but from present indications all that will be in operation will be overtaxed and unable to handle the large quantities of fruit that will be offered. There are hundreds of viticulturists with from ten to twenty acres of vines who have no means for converting their

crops into wine themselves, but must depend on selling to those who make wine making a business.

So great is the demand among these for the enlistment of capital in the establishment of new wineries that in at least one case a donation is offered of all the land necessary for such purpose, and doubtless many similar opportunities may be found. There is no sure investment for capital or one more certain to yield an ample return than in the construction and intelligent operation of a wine cellar. The amount needed is not large, and the following estimate has been prepared by experienced parties who contemplate the erection of a winery at Martinez:

Building 60x100, one and a half stories, the lower story double bounded	\$2,700
Fifty 1000-gallon redwood tanks	300
Twenty 1100-gallon redwood tanks	72,000
Gallons, 2 1/2	1,500
Fifteen open tanks, 2200 gallons	575
Ten tanks, 500, 5000 gallons, 3	150
Sixty oak puncheons, 9000 gallons, 1/2	585
Sixty oak puncheons, 9000 gallons, 3/4	315
One crusher and steamer	300
Three pumps	90
300 feet rubber hose	75
Two cars	50
Horse power	100
Elevator and draper	250
Hot water, tank and pump	300
Other tools	200

Distilling.....\$7,815
Total cost.....1,000

The estimate is a liberal one and will provide ample facilities for handling upwards of 600 tons of grapes. The capacity may be greatly enlarged at small additional cost. At Martinez it is proposed to form a stock company of vine growers and others for the carrying out of the enterprise, and the example is certainly a good and perfectly feasible one.

Grape Rot.

(The Monticello Grape Grower.)

The rot, we regret to learn, made its appearance in the vineyards on the 13th and 14th of June, sooner than usual, probably on account of the worst season that we have ever had for the vine—there having been so much wet weather and hot sun. The attack is very severe, and simultaneous all over our section. Indeed every variety of grape has suffered! Alas, for this dreaded disease; no sure remedy has been found yet. Bagging the grape is not being a success. The preventive processes advocated by Mr. Pearson are the only resource of the grape growers. The grape rot being a fungus, as well as the mildew, it would be well to try against it the sulphate of copper, by any of the processes already used against mildew. Mr. George Arnaud, the Superintendent of the Monticello Wine Company, tells us that he is trying the soaked straw process on a few vines in his garden, and will let us know the result. The rot is the greatest enemy of the vine grower; every one should try something to fight it.

The Santa Rosa Democrat says: Some of the finest vineyards in Sonoma county are near Lakeview. Report was received from there Saturday that the prospects were never better, and this fall's yield promises to rival Bihler's wonderful harvest last fall, to wit: \$30,000 worth of grapes from eighty acres of vines.

The Fresno Democrat says: "The raisins produced in this country this season will exceed that of 1885 by at least 100 per cent. The grain crop will show about the same figure. The wine and brandy product will also be largely in excess of any former year."



ISSUED FORTNIGHTLY ON FRIDAY MORNING BY

E. C. HUGHES & Co., - - Proprietors.

CHARLES R. DICKLAND, - - Editor.

Office, 511 Sansome street, Postoffice Box, 2366

TERMS - PAYABLE IN ADVANCE.

One copy one year \$3 00

One copy six months 1 75

Including city delivery, United States, or Canadian Postage.

Entered at the Postoffice as second class matter.

AGENTS.

ANAHEIM MAX NEBELUNG
 CLOVERDALE, Sonoma Co. J. A. CARRIE
 DUCAN, Solano Co. A. R. STORM
 DUCAN'S MILLS, Sonoma Co. C. F. SLOAN
 FRESNO H. C. WARNER,
 (Golden Rule Bazaar)
 GEYSERVILLE, Sonoma Co. D. LEITCH
 HEALINGBURG, Sonoma Co. A. BALZELL
 LIVERMORE, Alameda Co. GEO. BECK
 MAXWELL, Colusa Co. M. NATHAN
 SANTA ANA R. F. CHITTON
 SAN JOSE, Santa Clara Co. E. B. LEWIS
 SANTA ROSA C. A. WRIGHT
 STOCKTON WM. H. ROBINSON
 WINDSOR, Sonoma Co. LINDSAY & WELCH
 WOODLAND, Yolo Co. E. BEIG
 HONOLULU J. M. OAT, Jr. & Co

FRIDAY JULY 16, 1886

Recognition

Our friends in the Fresno Viticultural and Horticultural Association recognize the value of a journal like the MERCHANT guarding and advancing their interests, and give effect to their good wishes in a very practical way, as will be seen by the following resolution:

Official.

FRESNO, CAL., April 5, 1884.

Proprietor S. F. MERCHANT - Dear Sir: Below is a copy of the minutes of the last meeting of the Fresno Viticultural and Horticultural Society that is of interest to yourself.

Resolved - That this Association recognize the SAN FRANCISCO MERCHANT as one of the best organs of the Viticultural and Horticultural interests in the State, an exponent of their views and able advocate of their interests, and moreover as a paper which has taken more than ordinary interest in the prosperity of Fresno county. We agree to give the publisher our liberal support while that journal pursues the course for which it has hitherto been distinguished.

Moreover, we suggest that manufacturers and dealers in agricultural implements and other merchandise who wish to call our attention to their goods, aid us and other Viticulturists in maintaining the SAN FRANCISCO MERCHANT on a sound footing, by giving it a large share of their advertising patronage.

Be it further resolved that the Fresno Viticultural and Horticultural Society tender its thanks to the SAN FRANCISCO MERCHANT for past favors.

C. F. RIGGS, SECRETARY.

WANTED.

A FRENCHMAN - WINE MAKER, DISTILLER and Cooper, desires to find employment. Can give good references. Address C. F., this office.

EVIDENCE OF POPULARITY.

We recently received a visit from a party interested in viticulture, which was exceedingly gratifying. He had been to the Mechanics' Library, according to usual custom when visiting San Francisco, to look through files of various papers. Glancing round the room he espied a file of the MERCHANT, and, having left home before the receipt of his last copy, he looked it through. He found however that it was somewhat difficult to read as it bore ample evidence of much wear and tear through constant and frequent use. He said it had evidently been read and re-read, as the leaves testified, some of the pages being almost worn through and curled up. He enquired from the Librarian if his ideas were correct and was promptly informed that the MERCHANT was read more than any other paper in the Library, chiefly by country visitors. This is indeed a gratifying evidence of its popularity, a fact that should be well noted by advertisers.

THE WINE BILLS.

At present writing it appears that partial success will attend Mr. Wetmore's efforts to secure legislation for the protection of the wine makers in the United States. We regret that he has not been wholly successful in the work that he endeavored to achieve. But, in the face of the many difficulties that had to be contended with, we consider that he has indeed done well. Always studying the viticultural interest, doing more work single-handed than any other hundred men engaged in the business in the whole of the State; with some local opposition and annoyance constantly thrust in his way; with a paucity of funds insufficient to defray his expenses, involving a large outlay from his private resources; in the face of these and many other obstacles he has worked for months, incessantly and without rest, or even adequate appreciation for his work, except by a few, and has to all appearances succeeded in pulling one of the Wine Bills through the political fire.

When we consider the thousands of bills that have been introduced during the session, and how ninety-nine per cent of them have been ignored, pigeon-holed or squashed in their incipency, then the fact that our interest has succeeded with one of its two bills, or fifty per cent, we may surely be content. To achieve such a success must have been a herculean task. It is expected that the Sweet Wine bill will become law. The gist of this bill giving special privileges, which are only right and just and which were not formerly enjoyed, to distillers of brandy and the sweet wine makers, has already been published in the MERCHANT. Its provisions are well known to all our readers. Bad butter blocks the Spurious Wine bill. This is to be regretted but we can only trust and continue working for success during the next session of Congress. Then it is to be hoped that the power of the swindlers and fraudulent wine makers, compounders, concoctors and stretchers, will not be stronger and greater than that of honest men engaged in an honest industry.

It is a somewhat remarkable coincidence that opposition to the Sweet Wine bill should have emanated from the office of the Commissioner of Internal Revenue. That official seems to have somewhat changed his views of late. There has been no objection to the measure on the part of the distillers of straight spirits in the Eastern States; on the contrary, they have endorsed it and given it their approbation and support. The cheap spirit men, however, seem to have done some wire-pulling, and with some effect upon the Commissioner of Internal Revenue whose duties should be to uphold and strengthen honest industries against frauds. The formation of the National Viticultural Association, however, and the unanimous action of grape growers and wine makers from all parts of the Union show the strength and determination of the viticultural industry. It is a young industry, so to speak, but it is one not to be trifled with. Those who are engaged in the business have as much right to claim legislation and the protection of the Government as men who are engaged in any other industry. And they have more right to claim it than any class of frauds and spurious manufacturers that may exist.

As Senator Stanford truly remarked, the passage of the Sweet Wine bill will add 25 per cent to the value of every acre of vineyard in the State. The passage of the

Spurious Wine bill will add another 25 per cent. And this will be secured during the next session of Congress if the united voice of the grape growers and wine makers throughout the United States will only make itself heard loud enough. In California it is of special and vital importance and we should start the ball rolling and keep it rolling. All our Congressmen are with us and we have warm and strong support from other States that are equally interested. Our opposition arises from a band of swindlers who have been thriving upon an illegitimate business with a plainly stamped upon every bottle of so-called wine that they placed upon the market. To enrich themselves they have cheated the public and worked serious detriment to straight wine makers. We must be determined to succeed and to do so we must all be prepared to assist with the means for doing so. This should not be left to a few as has so often been the case. In fact only a few days ago we heard of an instance where two of our wine makers who had time and time again contributed liberally, came forward with handsome donations in an urgent and critical time of need. We shall all reap the benefit and we should all contribute our mite. Another instance where much good could be done would be by some substantial recognition to Mr. Wetmore himself for his ind fatigable and unceasing efforts. We have heard of his work frequently from private sources. At one time he was so much rushed and pressed with work, and so worried with fear that he would not succeed, that his friends anticipated that his health would break down. Nobody can realize how much has to be done and how judiciously it has to be done. It is a constant strain of every nerve. Let the viticulturists of California then show their appreciation of his services in some suitable manner that will encourage him to renewed activity.

The Grape Growers Association.

The directors of the Grape Growers' and Winemakers' Association met on 6th Inst. The following members were present: H. W. McIntyre of Rutherford, President; C. E. Shillaber, Cordelia; J. F. Black, Livermore; C. E. Priber, San Francisco, and E. H. Rixford, Secretary.

The resignation of Maurice Keatinge of Lower Lake as director was accepted, and Hon. M. M. Estee was unanimously elected to fill the vacancy in the directorate.

The President explained that the object of the meeting was to devise means to secure statistical information regarding the acreage, the varieties of vines and other matters bearing on the wine crop of the State.

The Secretary read a communication from Professor D. L. Roesier, director of the (Enological Experimental Station, near Vienna, Austria, asking for information as to the wine industry in this State. The Secretary was directed to forward to the Professor the report of the State Viticultural Commission, and to ask of him what additional information he might desire.

The Secretary was instructed to communicate with F. W. Morse, who is already engaged under instructions from the Viticultural Commission in collecting statistics regarding the vineyards of the State and their products, and to ask him to be kind enough to furnish the association with what material he has already gathered, so as to avoid going over the same ground again.

OUR HAWAIIAN TRADE.

With pleasure we again refer to the value and importance of our Hawaiian trade to the Pacific Coast. Not a week passes but several sailing vessels leave San Francisco laden with the products of California for consumption on the Islands. These are in addition to the regular steamers which carry goods valued at least at \$150,000 every month, and the three Australian mail steamers that touch there. Besides all this we have a large quantity of lumber shipped direct from the Sounds, the total for last month aggregating in the neighborhood of 1,750,000 feet of the value of \$18,000, while San Francisco's exports amounted to over \$265,000 for the month, making a total from the Pacific Coast of \$283,000 for one month only. And this is a fair average of the whole year. Taking the figures of exports for June we have the following:

Low Admitted -	Value.
Free by Treaty	\$193,114 76
dutiable	63,776 93
Free by Civil Code	8,924 92
Total	\$265,816 61

FROM THE SOUNDS.

Lumber	1,729,250 feet, @ \$18,484 84.
Staves	80,000 feet, @

For the above figures we are indebted to Consul-General McKinley who also supplied us with the returns of Mr. J. A. Swan, Hawaiian Consul at Port Townsend, which embrace the lumber shipments from Tacoma, Port Blakely and Port Ludlow. The value of this large volume of business with a small country is self-apparent, and can be vouched for by the hundreds of merchants through whose hands it passes and by the thousands of men who are indirectly employed and benefited thereby. If a proportionate increase of trade could be made, according to population, with other countries, on or bordering upon the Pacific Ocean, then it would be well not only for San Francisco but also for the entire Coast. That there has been a steady growth in our Island trade is shown by the following table representing our exports to the Islands for the first two quarters of the present year. Thus:

Quarter -	Total Value.
Ending March 31st	\$705,839 17
Ending June 30th	753,971 18
Total for six months	\$1,459,810 35

This is from San Francisco alone and does not include the half-year's lumber trade from the Sounds. A total annual trade of over \$3,000,000 is not to be despised, yet a narrow-minded clique desire to lose it with its contingent interests. Its importance, however, is too great to California to permit of the gratification of these selfish desires, and fortunately there are enough liberal and broad-minded men who will protect the trade and industries of California.

Mr. Alfred F. Osborn, the Eastern Representative of the *Wine and Spirit Review*, was in San Francisco recently. He has been examining the vineyards in the Southern part of the State, in Napa and Sonoma. On his return he will visit Santa Clara County and Livermore Valley. In about a month, Mr. Osborn will visit the principal vineyards of Europe in the interest of his paper.

The State Viticultural Commission has received from the Italian Viticultural Society of Rome, Italy, the following valuable pamphlets: "Instructions for recognizing and the means of curing the peronospora of the vine," and "Plans for the construction of wine cellars."

HAWAIIAN POLITICS.

Our latest advices from the Islands show that there has been an almost complete change in the personnel of the Hawaiian Ministry. Politics are a great institution in the little Kingdom. They are of more importance and create more fuss, in their little way, than any Home Rule scheme that Gladstone could ever project. No matter who is in office there are always plenty of fault-finders and seekers after office. No matter what a Cabinet Minister did, he would be in the wrong. For about four years past, Walter M. Gibson has been His Majesty's chief adviser. It is safe to say that no man on earth has ever been assailed with so much and so persistent vindictiveness as Mr. Gibson. In spite of the most virulent opposition, the most outrageous accusations and bitter hatred, he has slowly and steadily strengthened his position and increased the number of his supporters. The present Ministry is, we believe, a better one even than the last. Mr. Gibson has assumed the charge of the Interior Department, while still retaining his position as Premier. This office affects more than any other, the affairs of the Kingdom. With Mr. Gibson's recent administration of his former department no reasonable fault could be found, consequently it is safe to anticipate a corresponding degree of care and judgment in his administration of the Interior Department. Herein there will be a gain. Another improvement is in the Finance Department, at the head of which is an old and much respected Hawaiian, Hon. Paul Kanoa. In the Attorney-General's Department, Hon. Paul Neumann is succeeded by John T. Dare, a gentleman who bears a good reputation in this city as a lawyer. His talents will undoubtedly be used to the best advantage, and his chief fault is that he is new to the country, a fault that is being daily remedied. In the foreign office, formerly occupied by Mr. Gibson, is Mr. Robert J. Creighton, a journalist and an old politician. Mr. Creighton has been on the Islands for about eighteen months. With his remarkable aptitude, he has grasped the true situation of Hawaiian affairs. His first political experience was gained in New Zealand where he represented a constituency for years. After a prominent political career there, he was sent to this country as the Representative of the New Zealand Government, and was entrusted with several delicate diplomatic commissions at Washington, all of which his tact, diplomacy and perseverance enabled him to push to a successful issue. Besides being a most capable journalist, Mr. Creighton is an excellent man for his new position. He is a man of sound judgment, a man of affairs, and a man well versed in such details as are essential to a successful administration of his department. Taking it all in all, we think the Hawaiian people are to be congratulated upon the change of Ministry, although the gentlemen lately holding office were very much superior to their numerous predecessors.

The *Examiner* continues its cry "Turn the rascals out." This is just what Cleveland is doing having just turned out of jail the man Watts who was so deservedly imprisoned for excessive cruelty to the sailors on the ship *Gatherer*. When a few more such rascals are turned out perhaps the *Examiner* will be happy.

Subscribe for THE MERCHANT.

AUSTRALIAN FRUIT.

A most successful result has just been obtained in the shipment of Australian fruit to England. The occasion was the opening of the Colonial Exhibition that is now being held in that country. The fruit traveled a distance of 14,000 miles, and, though the arrangements for their transportation were by no means perfect, they arrived in excellent condition. They arrived in England upon a bare market, fruit there being out of season, and were eagerly sought for, carefully examined and authoritatively criticized. In appearance, the fruit is said to compare favorably with the very best of English or American growth. As one London journal remarked, "no finer color or bloom has been seen in Covent Garden market." The size of some of the fruit was so unusual that it was scarcely recognizable as offspring from the parent stock. In fineness of skin and texture of flesh, they were equal to the best English or foreign fruit.

But they had a fault. Their flavor was not up to their appearance or what was expected. Excepting one or two of the apples, the flavor of the English and American fruit surpasses them. By American fruit, is meant Eastern fruit, which is shipped in considerable quantities to England, none going from California. These criticisms are, to our knowledge, fair, just and impartial. The fruit examined was from the Colonies of Victoria and South Australia, where the climate resembles more closely that of California. It is warmer than England or the Eastern States are in winter. This mildness of the winter season, tends to an unusual growth and excellent appearance of fruit. But it spoils the flavor. Cold weather, with frosts, checks abnormal growth and vastly improves the flavor. Though we may be proclaimed heretics from the housetops, we assert that the fruit of California lacks this flavor which forms the essential enjoyment to fruit consumers. It is large and luscious looking, but has not the flavor of English fruit. California, or a great portion of it, is more the home of the vine and of citrus fruits. If there be fruits in California that have the flavor of English fruits, then it is certain that they never reach the San Francisco market.

There is only one place that can at all compare with England for fruit flavor. That place is the little island of Tasmania, situated to the South of Australia. It is a veritable fruit garden. Fruit grows wild; it is common and so cheap that it often is allowed to rot upon the trees, not paying for the picking. With its quantity too it has a delicacy of perfume that permeates the whole fruit and gives it that exquisite flavor that makes it so delicious and fruity. We have seen and eaten it for many years, and have no hesitation whatever in saying that for flavor the fruit of Tasmania far exceeds that of any other of the Colonies or of California. It is the fruit Colony, *par excellence*. The crops are enormous and the fruit is both delicious and delectable.

Clarifying Wine.

Common glue can be used for clarifying wine instead of gelatine, for gelatine is simply well purified glue. Glue of light color broken into pieces, should be tied in a linen cloth or bag and put into cold water. Change the water after six hours. Repeat this five or six times. The glue swells into a gelatinous mass, out of which the water draws all soluble matter. The glue should then be allowed to drop all water out, and after this be slightly warmed and melted in an iron pot (porcelain lined), when it will be ready for fining wine.

THE GRAPE CROP.

In this issue we publish reports from different parts of the State, upon the prospects of the grape crop. In some of them there is a degree of uncertainty. A statement has been published that last year's crop was 16,000,000 gallons of wine. This is absolutely false, the total not exceeding half that amount. But the publication of such figures now is so plainly in the interests of the clique who rule the wine market, force down prices at their own sweet will, and advance them after they have manipulated their purchases, that it will not be credited anywhere. It is a repetition of the old game that has been tried so often and with too much success. The grower derives little or no benefit from market conditions.

The estimates given, show that the greatest increases are expected in those sections where the acreage in bearing vines is comparatively small, and where last year's yield was almost a total failure. The gain therefrom from these parts will not form so large a total as is expected when one bears of a crop two or three times as large as the last. It is easy to talk of millions, but a good many tons of grapes are required to make a million gallons of wine. The stocks in first hands are very limited, and, before the end of the year, jobbers' cellars will be nearly emptied. The exports of this year too have been greatly in excess of those of former years. The home consumption has also been larger and is increasing every day. The establishment of cheap wine shops and the custom, which is steadily growing among hotel and restaurant keepers, of placing wines on the same basis as tea and coffee, both serve to increase consumption and create a greater demand.

That this year's crop will reach 25,000,000 gallons of wine we do not believe. The grapes that have suffered most this season are the Zinfandels, Missions and Rieslings, the varieties that are cultivated the most extensively. The berries have dropped to a considerable extent, and those that remain are not of uniform size. Some are stunted in growth while others are fully developed. The Muscat grapes seem to have succeeded exceedingly well this year, and a large raisin crop may be looked for, judging by the reports from Fresno and Los Angeles counties. But of wine grapes, Los Angeles is not so large a producer as is generally believed. It is the banner raisin County, but very great reticence is always shown there in giving reliable figures as to the wine production. It must be remembered that Mr. Morse, who traveled carefully through that county, reported the acreage planted in vines as considerably less than the estimates formerly given by the assessors, and which was formerly the only standard by which any opinion was formed. Taking all things into consideration, and allowing for the increased area of bearing vines, we are of opinion that this year's wine crop will not exceed 18,000,000 gallons. In fact, we think it will be rather less than that figure. This will not have any great surplus after allowing 6,000,000 gallons for export, 6,000,000 gallons for home consumption and satisfying the requirements of the distillers. Wine makers should not allow themselves to be bluffed by the 25,000,000 gallon estimate parties.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

THE NEW ZEALAND VOLCANO.

The graphic descriptions of the volcanic disturbances that recently occurred in New Zealand are full of interest. In the middle of the night, without a sound or sign of warning, a mountain, that for five hundred years has never been known to show any eruptive symptoms, suddenly belched forth its fiery flames, hurling masses of mud, lava, ashes and cinders high into space. The noise thus created was heard over a hundred miles away. The terror of the residents in the neighborhood can hardly be realized. Aroused suddenly from their sleep, they found an intense volcano where a few hours before everything had been quiet and peaceful. Hurrying from their houses they were driven back for shelter from the falling ashes, till the weight of the ashes became so great as to crush down their homes. Then again they had to flee for their lives in the cold night air. That the loss of life was not greater is somewhat miraculous. The most wonderful escape was that of an old Maori chief, who, after being buried under the ashes for 102 hours, was dug out alive. A sad and touching incident was the fate of a young Englishman traveling to see the wonders of the volcanic district. With the other inmates of the hotel he suggested, as they were seeking unknown and doubtful safety from the falling house, that a few words of prayer should be offered. He was thanked for the suggestion. He then had a firm conviction in his mind that he would not survive the night. His brother had been killed suddenly, and his two sisters had but recently died suddenly. He then wrote a few lines in his pocket book to his mother before the start was made. The party had not gone ten yards from the house when this man was missed. Returning to seek him it was discovered that he had been crushed to death by the falling house. This is only one of many similar sad scenes. There was also considerable loss of stock and further impending loss through the entire destruction of pasturage. Several villages were destroyed and are completely buried under the ashes. Large land and mud slides have occurred on the mountains and an enormous fissure in the earth extends for a distance of ten miles. The loss to science through the changes and destruction of the wonderful natural hot springs, terraces and general scenery will be compensated for by the more recent developments that will for years form a special theme of study for scientists.

We have had a very pleasant visit from Mr. Alfred F. Osborn, representative of the New York, Louisville and Chicago Wine and Spirit Review. Mr. Osborn has visited many of the principal vineyards of the State and speaks highly of the kind and cordial manner in which he has everywhere been received. The growing importance of the California wine trade has caused Mr. Osborn to make arrangements for regular communications to his journal on viticultural topics. This should tend to assist in popularizing our products through the large increased circulation of accurate information among new readers who are mainly interested in the wine and spirit business.

From La Cantera Wine Company we have received a sample of their wines which are now placing on the market. Messrs. Heathcote, Dexter & Co., who are the agents, handle nothing but the choicest productions from some of the best makers of Napa and Sonoma Counties.

GRAPE CULTIVATION IN TASMANIA.

[A. G. Diego Bernacchi in the Mercury.]

Following up the desire to keep you informed from time to time of the progress and provisions connected with the establishment of the wine and silk culture in Tasmania, and particularly of Maria Island I deem it necessary to forward you to-day an account of the impressions I have had lately in Victoria, during a visit I made to one of the most famous vineyards of this colony.

I was fortunate enough to receive, a fortnight ago, an invitation from Messrs. Hubert De Castella and Rowan, of St. Hubert Vineyard, near Lilydale, on the Yarra, to visit their place. I accordingly proceeded there, where I arrived late in the evening.

Before entering on further details, it will be well to remember that Messrs. Hubert De Castella and Rowan, were the most successful exhibitors at the Melbourne International Exhibition, 1880-81, the jury awarding them the Emperor of Germany's grand prize, consisting of a magnificent silver service of plate, value £1,000, which caused a great surprise.

It appears that the wines of St. Hubert were found to be equal to the best wines of Europe, with the exception of the choicest qualities reserved for wealthy connoisseurs.

Mr. Hubert De Castella gave me a hearty reception, and after supper we passed a most pleasant and interesting evening together.

The Governor (Sir H. Loch) was staying with Mr. De Castella only a few days before my visit, and during his stay testified to the excellent qualities of his wines.

Mr. De Castella is one of the pioneers who had to endure 20 years' struggle in endeavouring to introduce and promote the wine industry in Victoria; he had to pass through a long period of gloom and uncertainty, and it must now be a great gratification for him and for other vignerons of Australia to find that their perseverance and energy has at last been crowned with success. I had therefore great pleasure in listening to all the details which made me at once acquainted with the most approved means for improving the culture of the vine in Australia, based on the experience of 20 years' hard struggle, which will undoubtedly be of immense value to me.

Mr. De Castella transformed a wilderness into a most enviable and delightful home, surrounded with beautiful slopes all covered with luxuriant vines and trellises. The site is a very picturesque one, surrounded by mountains varying from 1,000 feet to 3,000 feet high.

The buildings have also something of a picturesque appearance, and look like a little township. They consist of Mr. De Castella's house, the cellars, stables and the workmen's houses, with beautiful gardens and orchards in the vicinity.

There are in the different cellars over 150 casks, ranging in size from 250 up to 1,200 gallons all filled, and containing upwards of 125,000 gallons of wine of different sorts and vintages. The expenditure which had been incurred in building and forming these cellars must have been considerable. The casks are manufactured in Melbourne, and are made of English oak, and cost about 7d. per gallon.

The following morning, after a careful inspection of all the cellars and machinery, I went with Mr. De Castella to inspect his vineyard and the different varieties of his vines.

The vineyard of St. Hubert embraces some 250 acres, of which about 200 acres are now in full bearing, and turns out some 75,000 gallons of excellent wine per annum, and which is sold from 5s. to 8s. per gallon, and employs, on an average, 30 vignerons all the year round, besides giving occupation to some 80 persons during the six weeks of the vintage season.

The way in which Mr. De Castella's vines are cultivated show a marked progress to the system adopted in Italy and France, the work in these two countries being done exclusively by manual labor. In the method of preparing the ground for vine planting I found it performed in a very economical and more expeditious way by the introduction of Lennon's combined double-furrow plough, which ploughs and subsoils down to a depth of about 14 inches.

Scarfiers are also used between the rows, and very little hand labor is required to keep the land well cultivated and free from weeds. I was agreeably surprised to find so many cheap methods of culture, which I shall also introduce in Tasmania.

My opinion is that the wine growing industry in Victoria will be permanently profitable.

The chief wines made at St. Hubert are: Hermitage, Cabernet Sauvignon, Riesling and Chasselas.

Contrary to some of the wines of South Australia and the Northern districts of Victoria, which taste sweet and alcoholic, the Black Hermitage and Sauvignon grown at St. Hubert are very delicate wines, rich in flavor and having all the characteristics of the best French Clarets, besides the recommendation of being pure, light, dry, agreeable and healthy. I found the Riesling also a very superior wine, and resembling very much some of the choicest Rhine wines.

All the casks which I tasted (and they were not few) were of the same quality, character and flavor, and which can only be obtained by proper classification, blending and maturing. I was very much pleased in learning from Mr. De Castella some processes which are in many ways different to those in vogue in France and Italy. A good many of his best vignerons are Italians.

The vines will bear three years after being planted. A yield of 400 to 500 gallons per acre is considered a very fair average, although Mr. De Castella assured me that he has had even up to 800 gallons per acre.

Careful vignerons ought to discourage such heavy yields, as they will undoubtedly impoverish the produce and weaken the vine, this could be easily prevented by pruning the vine much closer.

Some of the vines of Mr. De Castella, though very healthy, I found in some places attacked by "Oidium," which disease could be easily prevented by carefully applying a coat of sulphur twice during the season. I found that Mr. De Castella does not trellis all his vines, and he also agreed with me that trellises will always give a far heavier yield, especially when wire and posts can now be procured at a moderate cost.

I was also much surprised at finding the grapes so backward for the time of the season, and also some of the fruit trees in a similar state. The climate of St. Hubert is decidedly much colder than that of Maria Island and the East Coast of Tasmania.

Whilst on Maria Island we had the peaches ripe a month ago; here, on the contrary, they were far from being so advanced.

Mr. De Castella told me that he experiences very sharp frosts in winter, and

some times also in spring, whilst he has repeatedly had his vineyard under snow. He tried to grow oranges, but they proved a partial failure on account of the frosts.

Mr. De Castella will supply me with some 30,000 or 40,000 plants of vines out of his nursery, whilst some of the plants for table grapes and champagne I shall get from the Murray district.

Having already engaged a superintendent vigneron, who acquired great experience both in Victoria and in Italy, as well as other vignerons, I have also ordered all the necessary implements, the same as those used at Mr. De Castella's vineyard. I shall therefore begin work at once on Maria Island, and over 50 acres will be laid out this year entirely under vines of different varieties, besides extensive plantations of mulberry trees, oranges, lemons and olives, from South Australia—the whole embracing 100 acres of land.

The soil and climate of a great part of Tasmania, and especially of the East Coast, is eminently favorable to the growth and cultivation of the mulberry and vine, and particularly for the best-flavored sound and wholesome Claret, on account of its temperate climate.

I should, therefore, recommend Tasmanians to try, even on a small scale, a similar plantation; and I shall gladly supply them with every possible information. I should also like very much to see Tasmanians drinking more light wines, once it is rendered a cheap beverage, and supersede the use of those heady and doctored alcoholic compounds so much in favor at present.

The experience of older nations has shown beyond doubt that the people of wine growing countries are sober in their habits, and that the consumption of light wines is conducive to temperance and health.

As stated above, I conclude by repeating that a wine drinking country is always a sober country, and does not necessitate the creation of such an institution as that of the "Blue Ribbon."

Unfermented Wines.

[Santa Clara Valley.]

We find there are many persons who have conscientious scruples against the use of fermented wines as a beverage, scruples arising from ideas obtained in countries where what is sold as fermented wine is really only common grain spirit reduced by the addition of water, and sufficient tannin and color added to make a liquid resembling somewhat in color, taste and general appearance the genuine article of wine. There is no doubt but that such an article is not wholesome nor desirable as a beverage, and that there is something of a possibility that an appetite for a stronger portion of whisky may be promoted by its use. If any one has these ideas in regard to pure wines, we are not disposed to call them unreasonable, even if they do not accord with our own opinions on the subject of the use of wines. These ideas need not, however, deprive such persons of the benefits which arise from the use of the pure juice of the grape at the table for dessert and other purposes. It is well known that an article called unfermented wine has been produced, in which the must has undergone no fermentation, but contains all its natural sugar and other matter which may be extracted from the grape without fermentation. The color seems to come from the solution of the coloring matter of the skins in the alcohol formed in fermentation

and therefore when you see an unfermented wine having a fine color like the clarets you may have a very reasonable suspicion that it is produced by the use of aniline dye which cannot be recommended for the purposes of family use in that direction.

Another way in which wines are kept from fermenting is by the use of salicylic acid or some other antiseptic substance which kills the fermentative germ or arrests its action for a long time. We cannot recommend wines thus produced. Physicians have pronounced against the use of salicylic acid and believe it to be very injurious when taken in any other way than as a medicine and then only with great care, so that wines made in this way should not be partaken of in any quantities. It is well known that a heat a little less than boiling will entirely destroy the germ of ferment in any liquid, and if it can afterward be protected from the action of the air it will remain unchanged. Pure grape must being heated and clarified and carefully sealed up in the same manner as fresh fruits are prepared will keep indefinitely.

We dropped a note to one of our subscribers at whose residence we once tasted a fine article of unfermented wine, and asked him to give his experience in its preparation and use, but we suppose he has not found the time, for his communication has not arrived. We will therefore give such directions as we have observed in the course of our own limited experience. Prepare the must by crushing the grapes and carefully straining the expressed juice. By the proper blending of different varieties of fruit you can secure just the proportion of sugar and acid that is agreeable to you, and you may be your own judge in this matter. Heat this nearly or quite to the boiling point and carefully seal up in the ordinary glass, self-sealing jars or bottles, using the greatest care in doing the work thoroughly and well, and you have your unfermented wine that will keep as many years as you desire. We have known persons who having lost too large a percentage of the jars by defective sealing, tied a piece of cotton batting over the top of each jar and the percentage of perfect keeping was very materially increased. It occurs to us that the cotton might be moistened in an antiseptic solution of salicylic acid and dried before putting on with favorable effect, but this is only conjecture and to be conformed by experiment.

To the wine drinker who has become used to this particular kind of wine, this preserved grape juice might not be entirely agreeable, but we know that those who have partaken of unfermented wine prepared in this way have become as much attached to it as the Frenchman to his claret. There is no disputing about tastes and both cases are entitled to respect. Another way in which the juice of the grape might be prepared for use as a beverage without fermentation, would be to condense it, by depriving it of its water in a vacuum pan as milk is condensed, and by reducing it with the proper quantity of water when used, it would have the same qualities as the fresh juice and at the same time be very portable, so that it might be conveniently carried on a long journey or voyage with the smallest possible amount of trouble, water being obtainable almost everywhere.

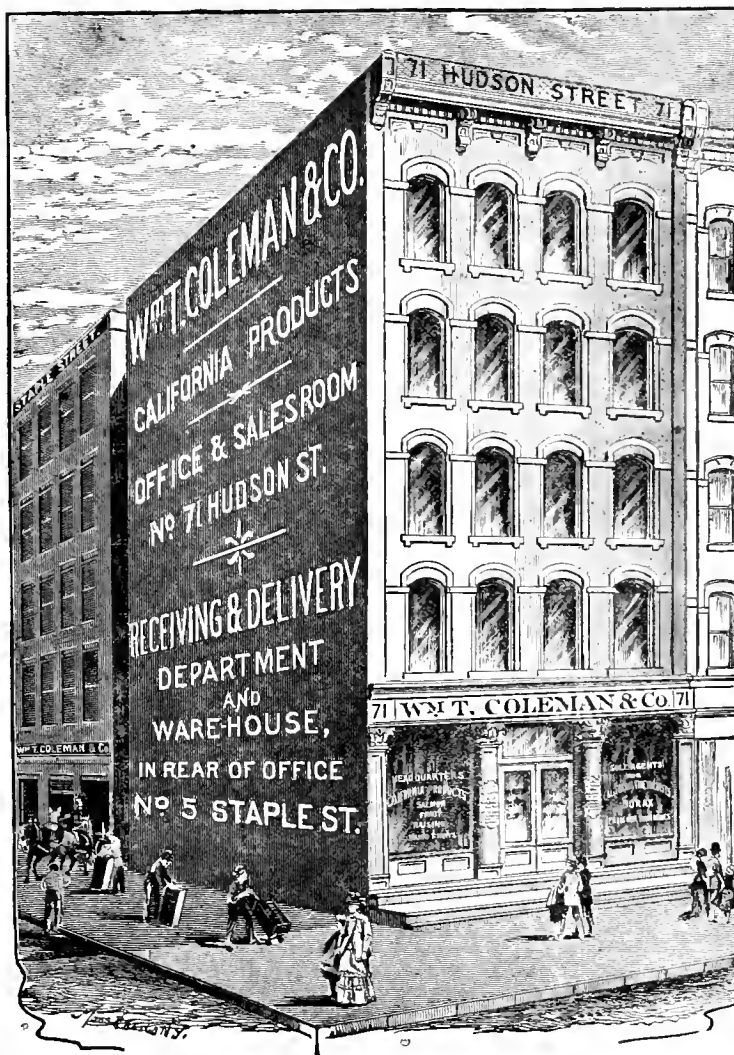
The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

CALIFORNIA WINES AND BRANDIES;

San Francisco,
121 Market Street.

Astoria, Oregon,
Flavel's Wharf.

Chicago, Ill.
91 Michigan Avenue.



New York.
71 Hudson Street.

London,
4 Bishopsgate St.,
within E. C.

Liverpool,
54 Drury Buildings.

WM. T. COLEMAN & Co.
71 HUDSON STREET, NEW YORK CITY.

ALSO AGENTS FOR
ALCOHOL WINE AND SPIRITS.

The National Association.

Speaking at Napa, Mr. George Husmann said: "We have accomplished a great and lasting good by organizing as we did and two things have been demonstrated. 1st.—The industry as a National industry has been recognized by the Government and the Commissioner of Agriculture has taken a decided stand in regard to it, the official named placing thirty men at our disposal during our sessions. 2nd.—A peaceful and successful demonstration opposed to teetotalers. At a large meeting, for which 5,000 invitations had been issued, Eastern wines were one evening served freely to every one; the next evening California wines were as freely sampled. There were from three to four thousand people present, the sessions lasted until midnight and no one became intoxicated. The people were not aware up to this time that California could produce such wine. They say, at reasonable prices, we cannot supply the demand for it."—*Napa Reporter*.

Grapes in Livermore.

[Livermore Herald]

We present herewith an estimate of the grape crop of Livermore district for the coming season, made by a prominent vine grower of this valley. It is the result of a careful examination of the present condition of the crop, aided by the *Herald's* table of acreages of the various varieties of bearing vines. It is what he calls a liberal estimate, based upon the proposition that there be no further setbacks to the crop. He figures in tons as follows:

Zinfandel, 823 acres (tons)	1387
Mataro, 246 acres	329
All other varieties, 1473 acres	685
Total yield (tons)	2401

Not a Wise Child.

[Boston Record]

Talking about busy men who leave their homes early and get back after dark and never see their children, a man of that sort was hurrying away one morning when he found that his little boy had got up before him and was playing on the sidewalk. He told the child to go in. Child wouldn't. Man spanked him and went to business. Child went in howling. The mother said, "What's the matter?" "Man hit me," blubbered the youngster. "What man?" "The man that stays here on Sundays."

WINE MEN!

TAKE NOTICE!

ST. HELENA, July 8, 1886.

I have on hand at my Cellar at Bello Station, 2 1-2 miles south of St. Helena, 15,000 Gallons of White Wine, the vintage of 1884, Riesling, Chasselas and Burger; also, 35,000 gallons Riesling, Chasselas, Burger and Zinfandel Claret of 1885, which I offer for sale cheap to make room for this year's vintage.

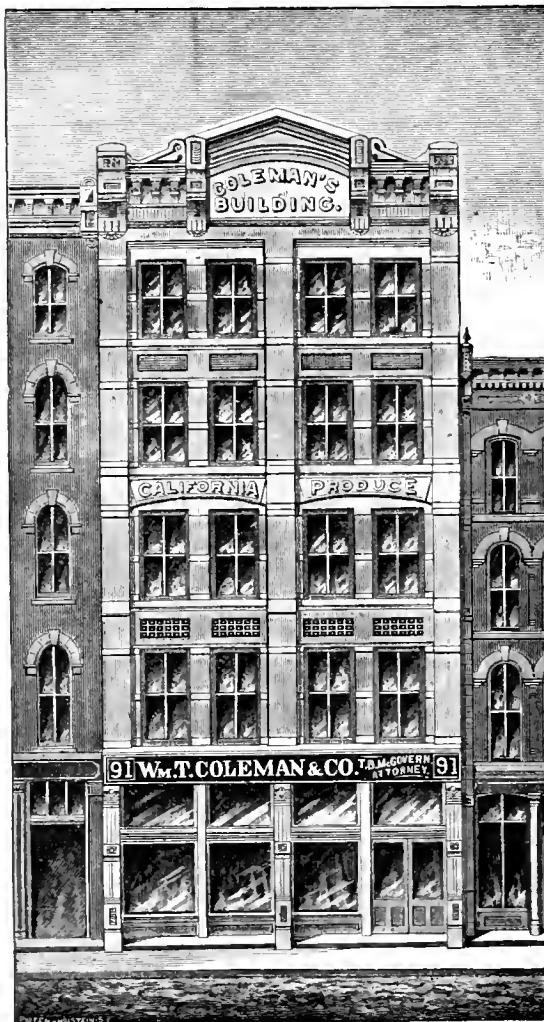
J. H. McCord.

AGENCY OF

WM. T. COLEMAN & CO.

91 MICHIGAN AVENUE, CHICAGO.

California Products a Specialty.



California

Canned

Fruits.

California

Dried

Fruits.

California

Raisins.

California

Wines,

California

Oranges

COLUMBIA AND SACRAMENTO RIVER SALMON,

—AND ALL—

Pacific Coast Products Suited to Eastern Trade.

CONSIGNMENTS SOLICITED, AND ALL CORRESPONDENCE

PROMPTLY ATTENDED TO.

T. B. McGOVERN, Manager.

THE GRAPE CROP.

Reports to the State Viticultural Commission.

Mr. John H. Wheeler, Secretary to the State Viticultural Commission, has been endeavoring to obtain reports from the Local Viticultural Inspectors as to the coming grape crop.

Besides the following letters which have been handed to us for publication, Mr. R. J. Northam of Anaheim reports a full crop for his section, and Mr. Robert McPherson reports a full crop of Muscats in Orange, Los Angeles county. Following are the letters received:

FROM FRESNO.

This year's grape crop of Fresno county is very promising. The berries set well as a rule. The Troussau in some vineyards is an exception to that, to a small extent, having suffered a trifle from coulure, or the weather, during the setting season. Mildew made its appearance in a few isolated wet spots. But by an early and reasonable application of sulphur that evil was entirely overcome. The prospects for the coming crop compare favorably with those of 1885 and 1884. The above description includes the raisin grapes. M. DENICKE.

June 29, 1886.

FROM ST. HELENA.

It is impossible to give accurate information. The general verdict is, however, that the crop will fall considerably short of what it promised a month ago. In many instances the Rieslings and Zinfandels have suffered by the grapes dropping, and what remain are not uniform in size on the clusters. Not so much complaint in regard to other varieties. Have heard of no injury by mildew. Can only guess how this year's crop will compare with that of 1885, but from present indications would think it would be 20 per cent better. A great deal yet depends upon the weather. If we should have hot scorching winds (which is possible), it would materially reduce the yield. FRANK PELLET.

June 28, 1886.

FROM SANTA CLARA.

In regard to the appearance of the grape crop in this vicinity, I have to report that in our own vineyards we will have on the whole somewhat more than three-quarters or a full crop, the deficit being caused by the failure of the Charbono to set as well as it should. The Zinfandel, Mataro and Grenache are a full crop, that is, will average five tons per acre. The shy bearers—Malbec, Chanche Noir, Ploussard, etc.—where long pruned, are looking very fine. Berries have set well and no appearance of mildew as yet. It is difficult to compare this year with 1884 and 1885 on account of new acreage coming in, but the crop will probably double that of 1884 and treble that of 1885. The above remarks will apply generally to the vineyards of the whole district. R. T. PIERCE.

June 29, 1886.

FROM SAN JOSE.

In relation to the grape crop, the old vines are looking fine and promise a large crop, but there are only about 200 acres of old vines in this section. There are about 6000 acres of vines here from 3 to 5 years old. About one-quarter are Charbono and are almost a failure; the other varieties are a fair crop. I think we will have a fair crop to compare with last year. I would

say in the proportion of one to three in favor of 1886, if we have no more set-backs.

J. C. MERTHEW.

July 2, 1886.

FROM LIVERMORE.

I have only to-day been able to form some estimate of the grape crop of this year. Quite a number of varieties of grapes have not set well and the Zinfandel is one of them. The reason generally accepted for what is called coulure, and from which most all varieties have suffered in our valley, was due to some very hot weather, followed by cold and quite heavy winds. Mildew only affected the vines where sulphuring had not been done in the proper time, and the loss from it is but small. The crop for 1886 I estimate from 1400 to 1600 tons, or about two thirds of what I thought the crop would have been three weeks ago. GEO. BERNARD.

July 5, 1886.

FROM RUTHERFORD.

The "condition of the grape crop" in this district seems to be, generally, pretty good. The Zinfandel is in some cases light, or at least below the average; and it is notable that those vines which were "pruned for grapes" and produced enormously in '84, are, as a rule, suffering now; affording further (unnecessary) proof that the law of "Action and re-action" is immutable. The lesson taught is obvious. I cannot learn that mildew is troublesome. Coulure has in some localities, and in different varieties according to locality, considerably reduced the crop. Probably the Franken Riesling has suffered most. It is certainly most frequently mentioned. Comparing the prospective yield with that of 1884, it is not easy to forecast the result. Inquiry among those most carefully observant will frequently elicit answers which show local acquaintance, only, with the facts. Where Zinfandels planted in '81 predominate, and are showing light crop, a falling off from the yield of '84 is predicted, while, on the other hand, later plantations or different training show prospective results which, taken together with the increased acreage of bearing vines, lead to an estimated increase from '84 of ten to thirty per cent. My present impression is, that the increase in this county will be equal to 20 per cent. on yield of '84. Further investigation might lead, however, to a widely different estimate. I should add that my opportunities for careful study of the subject have been too limited to render the forecast of special value.

H. W. McIntyre.

July 3rd, 1886.

Mr. H. W. Crabb of Oakville reports that he expects the wine crop of Napa county will reach from five to six million gallons, nearly double that of last year.

CALIFORNIA VINEYARDS.

KRUG CHARLES, Krug Station, St. Helena, Napa Co., Cal. Producer of fine Wines and Brandies.

J. C. WEINBERGER, Manufacturer of Wines, near St. Helena.

H. W. CRAIG, Wine Cellar and Distillery, Oakville, Napa County.

SAN FRANCISCO WINERY, RUEFF & REH, Success Proprietors, 116 1/2 Eighth St., S. F., Cal.

MOUNTAIN WINE

From the Celebrated

YERBA BUENA VINEYARD.

Situated 7 miles East of San Jose. One thousand feet above the Valley. In cases of bulk fine Old Burgundy and Mountain Riesling.

PAUL O. BURNS WINE CO., Proprietors. Branch Cellars in San Jose, Cal. WM. T. COLEMAN & CO., SAN FRANCISCO, Sole Agents for Chicago and New York.



A. 1876 S. I. XII.
I. S. 1884 G.
The Industrious never Slack.
GUY E. GROSSE, Broker in Real Estate
Ranches, Residence, Business and Manufacturing
Property Bought and Sold on Commission.
Also Publisher of "Sonoma County Land Register and
Santa Rosa Business Directory."

Office, No. 312 B St. SANTA ROSA, CAL.

BOSTON BELTING CO.

GOOD HOSE A SPECIALTY.

J. W. CIRVIN & CO.,
24 CALIFORNIA STREET, S. F.

FILTERS

FOR WINES.

GEO. J. HUTCHINGS,
118 N. HOWARD ST., BALTIMORE, Md.

E. L. G. STEELE & CO.,

Successors to

C. ADOLPHE LOW & CO.,
COMMISSION MERCHANTS.Agents American Sugar Refinery and Washington
Simon Cannery.

HERRMANN & CO.,

HOP MERCHANTS.

Importers and Dealers in

CORKS, BREWERS' AND BOTTLERS SUPPLIES,
SODA WATER AND WINE DEALERS' MATERIALS.ALEX. FRIES' & BROS. COGNAC OILS,
ESSENCES AND FLAVORS.

331 SACRAMENTO ST. San Francisco.

NOW READY.

THE
REPORT

OF THE

FOURTH ANNUAL

STATE

VITICULTURAL
CONVENTION.

PRICE, ONE DOLLAR.

OFFICE OF THE SAN FRANCISCO MERCHANT.

E. C. HUGHES & CO.,

Publishers,

511 Sansome Street,

THE CALIFORNIA VITICULTURAL SOCIETY

Meets on the evening of the third Thursday of each month at Mr. Montgomery's.

J. C. MERTHEW, President
J. D. WILLIAMS, Vice-President
R. C. STILLER, Secretary
Please address all communications to R. C. STILLER,
Gibsonville, Santa Clara Co., Cal.

FRAZER AXLE GREASE

BEST IN THE WORLD
Its wearing qualities are unsurpassed, actually
withstanding two hundred times as much wear as
any other brand. Free from
Animal Oils. GET THE GENUINE.
FOR SALE BY
CALIFORNIA MERCHANTS
and Dealers generally.

T. & M. E. Tobin & Co.,

PRODUCERS OF PURE

CALIFORNIA WINES & BRANDIES,

Cor. Stockton & O'Farrell Sts.,

San Francisco, Cal.

DIVIDEND NOTICE.

The German Savings and Loan
Society.

DIVIDEND NOTICE THE GERMAN SAVINGS
and Loan Society. For the half year ending
June 30, 1886, the Board of Directors of the German
Savings and Loan Society has declared a dividend at
the rate of four and thirty-two one-hundredths (4
32/100) per cent per annum on term deposits and
three and sixty one-hundredths (3 60/100) per cent
per annum on ordinary deposits payable on and
after the 1st day of July, 1886. By order,
GEO. LETTE, Secretary

ESTABLISHED IN 1860.

ALL WINE MAKERS

Should drink the

PURE BELMONT

— HAND-MADE —

SOUR MASH WHISKY.

Supplied in lots to suit by

JAMES GIBB, 617 Merchant St.

THE RISDON

IRON AND LOCOMOTIVE WORKS.

Cor. Beale & Howard Sts., S. F.

W. H. TAYLOR, Pres't. JOSEPH MOORE, Sup't.

BUILDERS OF STEAM MACHINERY

IN ALL ITS BRANCHES.

Steamboat, Steamship, Land Engines

and BOILERS, High Pressure or Compound.

STEAM VESSELS of all kinds built complete, with
Hulls of Wood, Iron or Composite
STEAM BOILERS. Particular attention given to the
quality of the material and workmanship, and none
but first-class work produced.

SUGAR MILLS AND SUGAR-MAKING MACHINERY
made after the most approved plans. Also, all
Boiler Iron Work connected therewith.

PLUMBS. Direct Acting Pumps, for irrigation or City
Water Works purposes, built with the celebrated
Davy Valve Motion, superior to any other Pump.

Graham Paper Co.

OF ST. LOUIS.

W. G. Richardson,

PACIFIC COAST MANAGER,

No. 529 Commercial St.,

SAN FRANCISCO, - - - CALIFORNIA

TELEPHONE No. 1064.

SAN FRANCISCO SHIPPING.

Returns of the shipping arrivals at San Francisco during the first half of this year, show a large increase in the number of arrivals over similar periods in former years, though their aggregate tonnage is slightly less than in 1885. Out of 294, the total number of vessels that arrived at this port, no less than 116 came from the Hawaiian Islands, just the same number as all the arrivals from Europe, Australia, British Columbia, China and Japan put together. The tonnage of the Hawaiian vessels was only exceeded by the tonnage ar-

riving from Europe and Australia, which consisted of the large vessels bringing general merchandise and coal to this port and loading up with return cargoes of grain. Of all the vessels from the Islands, it is safe to assume that 75 per cent. were under the American flag, and regular traders in the transportation of produce to and from the Hawaiian Kingdom. It is also satisfactory to note an increase in the number of vessels flying the Hawaiian flag, all of which were either built in this country or purchased with American capital from English owners.

OUR NATIVE WINE SHIPMENTS BY SEA.

PER P. M. S. S. CO'S STEAMER SAN BLAS, JUNE 30, 1886.

TO NEW YORK.

MARKS.	SHIPPERS.	PACKAGES AND CONTENTS.	GALLONS.	VALUE.
E L, New York	B Dreyfus & Co.	30 barrels Wine	1449	\$575
W M, Washington	"	5 half puncheons Wine	394	240
G & T, New York	C Anduran & Co.	50 barrels Wine	2324	1098
Total amount of Wine			4167	\$1,913

TO CENTRAL AMERICA.

A F, Champerico	McCarthy Bros & Co.	48 cases Wine	2409	\$168
H F, Acapulco	John T Wright	15 cases Wine	119	100
M H, Acapulco	Urruela & Crioste	4 keg Wine	80	60
F S, Acapulco	"	1 keg Wine	20	18
M H, Acapulco	"	9 cases Whiskey		80
Total amount of Wine			459	\$346
Total amount of Whiskey, 9 cases				80

TO MEXICO.

H P, Mazatlan	Thumhauser & Co	1 barrel Wine	48	\$35
---------------	-----------------	---------------	----	------

MISCELLANEOUS SHIPMENTS.

DESTINATION.	VESSEL.	RIG.	GALLONS.	VALUE.
Honolulu	Zealandia	Steamer	917	\$841
Honolulu	W S Bowne	Schooner	120	83
Tahiti	Tropic Bird	Barkentine	92	47
China	City of Rio de Janeiro	Steamer	50	28
Japan	City of Rio de Janeiro	Steamer	577	554
Victoria	Queen of the Pacific	Steamer	40	40
Honolulu	W T Irwin	Brig	500	651
Kahului	Rosario	Schooner	137	92
Total			2,433	\$2,334

TO NEW YORK—PER STEAMER COLIMA, JULY 7.

E L, New York	A Brun & Co	20 barrels Wine	1000	\$400
---------------	-------------	-----------------	------	-------

TO PANAMA.

J R, Panama	C Anduran & Co	30 half puncheons Wine	1830	\$730
-------------	----------------	------------------------	------	-------

TO CENTRAL AMERICA.

T S, Punta Arenas	Lilienthal & Co	1 barrel Whiskey	45	\$11
P, in diamond, Punta Arenas	Wilmerding & Co	1 barrel Whiskey	39	156
P, in diamond, Punta Arenas	B Dreyfus & Co	14 kegs Wine	140	190
		1 case Wine	5	5
G de B, Punta Arenas	Parrott & Co	20 cases Wine	75	61
		1 box Brandy	5	24
T S, Punta Arenas	Cabrera, Roma & Co	1 barrel Whiskey	42	93
B & T, La Libertad	Urruela & Crioste	1 cask Wine	64	48
Total amount of Wine			284	\$304
Total amount of Brandy			6	24
Total amount of Whiskey			126	260

TO MEXICO.

A V, Acapulco	Urruela & Crioste	2 casks Wine	121	\$49
M G, Acapulco	"	1 barrel Wine	48	38
Total amount of Wine			169	\$87

TO GERMANY.

R Mehuert, Germany	C Anduran & Co	12 barrels Wine	100	\$68
--------------------	----------------	-----------------	-----	------

MISCELLANEOUS SHIPMENTS.

DESTINATION.	VESSEL.	RIG.	GALLONS.	VALUE.
Apia	Hera	Schooner	260	\$220
Mexico	Newbern	Steamer	583	356
Total			843	\$576

Total shipments by Panama steamers	8,057 gallons	\$3,883
Total shipments by other sea routes	3,276 "	2,910
Grand totals	11,333	\$6,793

Freight on Wine.

[S. F. Real Estate Circular.]

One still hears people talk of California wine being sent to Europe, and, after undergoing a process of mixing or some other kind of manipulation coming back here to be sold at a high price under a French or German name or label. No one would say this unless he was very ignorant of the facts. We produce much good, sound, pure, drinkable wine, and exceedingly little or no fine delicate-flavored, exquisite wine which would fetch a high price all over the world and which it would pay to export anywhere, because the expense of the freight would bear so small a proportion to the value of the wine. The time may come when we shall do this, but this is entirely in the future. Notwithstanding the prevalence of phylloxera in France and other countries, there is abundance of wine of ordinary quality, produced in Europe, as good and even better than ours, and sold there at a lower price than ours is sold at here. High freights alone will keep our wines at home. A man told us the other day that he had sent two 34-gallon casks of wine to friends in England, in a wheat ship. The freight on each cask was forty shillings, or ten dollars. One of the friends to whom he sent a cask wrote to him saying that he had arranged that a wine merchant whom he knew well should on its arrival take delivery of it, keep it in his cellar and after allowing a proper time to elapse, bottle it carefully and see that all justice was done to it. The wine merchant said, looking at the bill of lading on which the amount of freight was written, that it was the expense

of the freight alone which prevented him from importing wine from California, and that he got a cask of double the size from Bordeaux to London at the rate of two shillings and sixpence, or sixty cents. It is much better to know these facts, favorable or not. The expense of freight which makes it impossible to ship ordinary California wine to Europe at a profit, ought to make it impossible to ship ordinary French wine here at a profit, and yet this is done, simply because ordinary French wine is often palmed off on us as wine of a superior class and charged for accordingly. We are ignorant of what is sent us here, but they can measure exactly the quality and value of the wine we send them. They constantly throw dust in our eyes, to their profit, in the wines they send us, but we can not reciprocate in our exports of native wines. It is a mistake for us to think that there is likely to be a famine of ordinary common every-day wine in Europe. Wine of this class is produced in great abundance in Italy, Spain, Hungary, Greece and other countries, at a lower cost than we can produce it. In the great French colony of Algeria, wine production is spreading rapidly, and some of the Algerian wine is of high quality.

Price of Grapes.

A. G. Chauche, proprietor of the Mont Ronge wine cellar, has contracted for the crop from J. H. Wheeler's vineyard, on West avenue, at \$20 per ton. The estimate of the crop is from 100 to 120 tons. Mr Chauche now offers \$20 for what grapes he is prepared to handle—600 to 700 tons.—*Livermore Herald*.

WM. T. COLEMAN & CO.,

Commission Merchants.

SAN FRANCISCO,

NEW YORK,

CHICAGO,

Agency WM. T. COLEMAN & Co.,

Agency WM. T. COLEMAN & Co.,

ASTORIA, Or.,

LONDON.

With Agents and Brokers in every Commercial City of Prominence in the Union.

WE MAKE A SPECIALTY OF HANDLING THE

RAISIN CROP OF CALIFORNIA !

And amongst others we are Agents for

Riverside Fruit Company of Riverside, Miss Mary F. Austin of Fresno, McPherson Bros. of Orange, T. C. White of Fresno.

With many other of the Most Prominent Curers of this State.

Our Facilities for Promptly Placing and widely Distributing Their Produce Can be Ascertained from the Above well-known Curers.

We are also Large Handlers of

ORANGES, DRIED FRUITS, HONEY AND BEANS

IN THE EASTERN STATES.

Advances Made when Required, and Full Information of Markets Promptly Given. Address

Wm. T. COLEMAN & Co.

MARKET & MAIN STS., S. F.

Olive Culture.

Writing on the above subject to the *Sonoma Index-Tribune*, Mr. Adolphe Flamant says:

1st. That such trees can be planted more successfully on rocky lands whose value is but one-fourth or one-fifth of those suitable to vine culture.

2nd. That the cost of plantation and ultimate yearly cultivation do not reach one-third of the cost of a vineyard.

3rd. That the crops can be gathered with much more economy and celerity than grapes can, and that the olive oil or pickled olive, which can be made with outlayings costing about one-tenth part of those required for wine making, can be disposed of within a week from the gathering of the berries.

4th. That the insect pests that are liable to attack the olive tree can be fought, with ordinary care, with much more ease and economy than phylloxera, or other enemies of the vine.

5th. That an olive tree planted in permanent site from the one year old rooted cutting, will develop with more vigor and rapidity than if kept several years in nursery to be transplanted when six or seven years old, as is sometimes done in Europe by parties who wish to retain meantime the use of their rocky lands for pasturage, and that, when so planted, it brings berries when four years old, and, beginning with its fifth year, gives paying crops which increase in quantity from year to year until the tree reaches its full development, when it will pay several times more than the best vineyard.

6th. That the profit on the crop can be computed at about 50 cents net per gallon of berries, and that while the tree is apt to give 6, 8, 10 gallons of fruit when, 6, 8, 10 years old, its capacity of bearing will reach 20, 30 and 40 gallons per tree when in from 15 to 20 years it will have reached its full maturity.

7th. That the tree seems to be harder to die than old Methusala, and that it can be considered as a permanent investment since there are olive trees still living at Jerusalem, which were known during Evangelical times.

8th. That the tree will stand the longest spells of dry weather, and not be affected unless by such extremes of hot or cold weather as are absolutely unknown in California.

9th. That the Picholine variety, which Mr. Flamant has adopted for his plantation, while it makes very good oil, stands as the best for pickling. Moreover it grows quickly, and is less subject to damages by insects than other varieties are.

THE FRENCH ON FRAUDS.

A gentleman residing in Montpellier, France, has sent us some particulars of the punishment meted out to French wine frauds. Two men were each fined 500 francs, were imprisoned, and their names with the full particulars of their crime were ordered published in two papers. A third party was fined 1,000 francs, in addition to three months imprisonment and the confiscation of his goods, and six papers were honored with the publication of his offense. A fourth man was fined 500 francs, his goods were confiscated, and he was made notorious through the medium of six journals.

Our friend writes:

MONTPELLIER, June 23, 1885.

Could you not get such a bill through, in order to punish the California and New York rascals? It would be an immense service to the honest wine dealers of America. It is not the fine that these swindlers fear so much, but what they do fear is to be branded as such before the world, by having their infamy published in the leading papers, and to have printed bills put up on the walls of the city, denouncing them and showing them up in their true light. As you will see by the article enclosed, they are also condemned to prison, and all their stock seized. To punish them as they do in France is the only way to crush them out. I hope that you will succeed in your efforts to benefit the American viticultural world and to rid them of such dishonest citizens.

The boycott and strike business seems to be on the increase in San Francisco. The Risdon Iron Works has very rightly refused to be dictated to as to whom they shall work for. If they had conceded this point, the Unions might with equal justice have claimed to fix their prices for work on the estimates for any contracts, and in fact the owners of the works would become perfect nonentities.

FOR SALE CHEAP.

A new 300-gallon STEAM STILL with all improvements; also a

GAR & SCOTT
25 HORSE POWER
Agricultural Engine.

But little used and warranted in good condition. Apply to

SANDERS & CO.,
421 Mission Street, San Francisco

CALIFORNIA
Concentrated
GRAPE MUSTS

FOR THE SEASON OF 1886 I WILL CONCENTRATE musts of grapes from the celebrated Natoma Vineyard.

THOS. D. CONE,
Manufacturer of California Concentrated Grape Musts
OFFICE—640 CLAY ST., (Up-stairs),
San Francisco, Cal.
Works at Homestead, near Sacramento, Cal.

BUY THE
HOWE SCALE.

D. N. & C. A. HAWLEY,
AGENTS, San Francisco.



ARE YOU USING
WELLINGTON'S
IMPROVED EGG FOOD
For Poultry?
IF NOT, WHY NOT?
EVERY GROCER, DRUGGIST AND MERCHANT
SELLS THIS EGG FOOD.

L. LANDSBERGER, HENRY M. LANDSBERGER.

Landsberger & Son,
Commission
Merchants,
123 CALIFORNIA STREET,
SAN FRANCISCO.

Agents for the Purchase and Sale of Viticultural Products and Vintners Supplies.

E.C. HUGHES PRINTER
511 Sansome St., S. F.

W. E. CHAMBERLAIN, JR. F. A. JOHNSON

PACIFIC
Business College,
320 POST ST.
SAN FRANCISCO.

Life Scholarships, \$75.

DAY AND EVENING SESSIONS.

Ladies Admitted into all Departments.

25¢ No Vacations. Send for Circular. TS

CHOICE
OLD WHISKIES

PURE AND UNADULTERATED.

We Offer for sale on Favorable Terms to the Trade,

CATHERWOOD'S

Celebrated Fine Old Whiskies,

OF THE FOLLOWING BRANDS, NAMELY.

"CRANSTON CABINET"
"A.A.A." "CENTURY"
"OLD STOCK"
"HENRY BULL"
"DOUBLE B"
"MONOCRAM"
VERY OLD AND CHOICE, IN CASES OF ONE
DOZEN QUART BOTTLES EACH.
"BRUNSWICK CLUB" Pure Old Rye,
And "UPPER TEN."

For Excellence, Purity and Evenness of Quality the above are unsurpassed by any Whiskies imported. The only objection ever made to them by the manipulating dealer being that they cannot be improved upon.

Dickson, De Wolf & Co.

SOLE AGENTS,

SAN FRANCISCO, CAL.

GOODYEAR'S
"COLD SEAL"

Rubber Hose

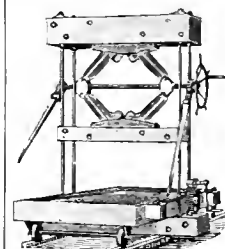
For Sale by All Dealers.



GOODYEAR RUBBER CO.

R. H. PEASE, JR. & AGENTS,
S. M. KUNYON,
577 and 579 Market St., SAN FRANCISCO.

WORTH'S IMPROVED
PATENT
COMBINED TOGGLE LEVER
—AND—
SCREW PRESS.



I desire to call the attention of wine and cider makers to my Improved Press. With this Press the movement of the follower is fast at the commencement, moving one and a half inches with one turn of the screw. The last turn of the screw moves the follower one-sixteenth of an inch. The follower has an up and down movement of 2 1/4 inches, with the double platform run on a railroad track. You can have two curbs, by which you can fill one while the other is under the press, thereby doing double the amount of work of any other press in the market. Model on exhibition at the offices of the Board of State Viticultural Commissioners. Also manufacture Horse Powers for all purposes, Ensilage Cutters, Plum Pitters, Worth's System of Heating Dairies by hot water circulation. 25¢ Send for circular.

W. H. WORTH,
Petaluma Foundry and Machine Works,
Petaluma, Sonoma Co., Cal.

Testimonials from I. DeTurk, Santa Rosa; J. R. J. Portal, San Jose; Ely T. Sheppard, Glen Ellen; Kate F. Warfield, Glen Ellen; J. H. Drummond, Glen Ellen; Joseph Walker, Windsor; John Hinkelman, Elkton; Wm. Pfeiffer, Guberville; J. & F. Muller, Windsor; R. C. Still, Guberville; Lay Clark & Co., Santa Rosa; Vackey Freres, Old San Bernardino; J. F. Crank, William Allen, San Gabriel; James Enlison, R. & J. J. Gobb, Healdsburg; W. Metzger, Walter Phillips, Santa Rosa; J. Lawrence Watson, Glen Ellen; Geo. West, Stockton; can be had by applying for printed circulars.

Challenge Wine Pump.
WITH BRASS LINED CYLINDER, OR ALL BRASS PUMP



The annexed cut represents our Horizontal Challenge Wine Pump of great compactness and power, for use in wine cellars for pumping from one tank into another. The Cylinders of our iron pumps are brass lined, the piston rod, valves and valve seats are brass. Our all-brass pumps are made entirely of brass with exception of the lever. Very suitable as a power wine pump.

Wine Tanks,
Water Tanks.

We manufacture our tanks of two inch First quality Redwood Lumber, well seasoned, free from knots, with a hoop to every foot in height and guarantee them to be well made in every respect. Write for special prices. Write to—Send for our special Catalogue of Wind Mills, Pumps of all description, Wine Hose, Garden Hose, Wine Cocks, etc. Mailed free upon application.



WOODIN & LITTLE,
509 and 511 Market Street, San Francisco.

War Against Adulteration.

(Oakland Tribune.)

Chas. A. Wetmore of this city is doing a good work, not only for California vineyardists, but for the people generally, in presenting to the people of the East, intelligently and forcibly, the great evils of adulteration and the great extent to which adulteration is being carried on in this country, as well as in France. The most villainous compounds are put up and sold in New York and other Eastern cities, labeled "California Wine" and "California Brandy," to the great injury of our California production, and destructive to the health of those who take the poisonous compounds into their stomachs. It is a well-known fact that a large proportion of the wines and brandies imported into the United States are more or less adulterated, and Mr. Wetmore has taken the labor upon his shoulders to work up a public sentiment at the East that shall force Congress to take some action that shall prevent these frauds from being perpetrated upon the public. It has been slow work educating the people of the East up to the proper appreciation of this great question, so important to our State; but his energy and perseverance are equal to the occasion. His latest effort has been made among the physicians, in the interest of pure wines and brandies for medicinal purposes; and here he has met with success, for the reason that doctors at once see the necessity of

putting a stop to the sale of adulterations, poisonous in their nature, especially for medicinal use. There is no doubt that there is manufactured in New York, and other large cities at the East, more gallons of adulterated poison, and sold as wine and brandy, than is made by all the vineyardists of California from the juice of the grape. But what is worse, the stuff is sold as coming from California, to the great and lasting injury of our vineyardists. Mr. Wetmore should be sustained, encouraged and supported by the unanimous voice and influence of the people of this State in his war upon adulterations. There is little or no hope of getting any relief from the present Congress. The policy of this Congress seems to be principally directed to devising ways and means of how not to do anything of particular benefit or interest to the people at large. The time is frittered away in chin music and demagogical tactics, rather than spent in useful legislation. Its records will not redound to the credit of the law-makers, and when they go before the people for re-election, some of the obstructors of legislation will get badly left, if the people do their duty. On the whole, the session may be set down as a miserable failure. But it is hoped that the work being performed by Mr. Wetmore will bear fruits in the future, if not now, and that Congress, when it shall be composed of statesmen devoted to useful legislation rather than partisan tactics, will not only see the necessity of taking action upon this

important subject affecting the health of the people, but will adopt the necessary legislation, with the severest penalties, prohibiting the manufacture, importation or sale of any adulterated articles of food or drink.

Pure Wine and the Doctors.

(Wine and Spirit Review.)

Mr. Charles A. Wetmore, a very competent and well-informed representative of the California wine-growers, who is at present laboring with Congress to secure certain legislation advantageous to that interest, is a gentleman of versatile accomplishments and much resource; indeed, he would be a worthy representative of any interest which he had mastered. Both as a writer and a speaker he is fully capable of interesting the public, as well as the specialist and scientist. With a view of bringing an outside influence to bear upon Congress, he has, within the past fortnight, directly interested the Medical Society of the District of Columbia in his work. His address before that body, while chiefly devoted to calling attention to the merits of pure native wines, contained also some very wholesome hints and suggestions as to the temperance question, rationally considered, and other matters of interest to the American consumer of wines and liquors.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

Proper Pruning of Muscats.

There now seems to be no more doubt about the Chaintre system of pruning being the proper one for the muscats. For this system, one long branch is carried from each vine and the end tied to a short stake by the next vine. This long branch is, then trimmed with spurs, just as the head of a grape vine generally. We will give one instance illustrating the great advantage of this system of pruning. In the muscat vineyard of Professor Braly, near Fresno, some three or four year-old vines have this season been put in Chaintre, while the majority immediately around are trimmed to heads in the usual way. The Chaintre pruned vines are now literally loaded with grapes, while those trimmed to heads have very few. In the Chaintre system the canes are not staked high, but run on or near the ground, accordingly the old way of planting, 8x8, will not do, as it would hardly allow sufficient space for plowing and hauling. We think 6x10 or 12x5 would be proper—at least that is the distance we should select in our own vineyard. But if our vines were already set 8x8, we would not hesitate to put them in Chaintre. The advantages of the system are: 1st—larger crops; 2d—immunity from black knot; 3d—protection from sun-scalding; 4th—better circulation of air.—*Fresno Republican.*

Mr. Clarence Wetmore, experimented with a few Muscat vines at Livermore, and he found that the Chaintre system of pruning ensured not only more grapes, but they were of larger and more uniform size than those on the short pruned vines.

SULPHUR! SULPHUR! SULPHUR!

FOR SALE IN

QUANTITIES TO SUIT.

WM. CLUFF & CO.,

WHOLESALE GROCERS,

16, 18, 20 and 22 Front St., Cor. Pine, S. F.

**THE AMERICAN SUGAR REFINERY COMPANY,**

MANUFACTURERS OF THE

CELEBRATED CUBE SUGAR,

Supplies Only Exporters and the Jobbing Trade.

This Company manufactures all the Grades of HARD and COFFEE SUGARS and SYRUPS. Special attention given to the making and Packing of Loaf Sugar for Export.

208 CALIFORNIA STREET,

SAN FRANCISCO, CAL.

E. L. G. STEELE,
President.

Dr. MINTIE

THE SPECIALIST,

No. 11 KEARNY ST., San Francisco.

Treats all Chronic, Special and Private Diseases with Wonderful Success.

THE GREAT ENGLISH REMEDY



is a never-failing cure for NERVOUS DEBILITY, EXHAUSTED VITALITY, SEMINAL WEAKNESS, SPERMATORRHOEA, LOST MANHOOD, PROSTATITIS, IMPOTENCY, Paralysis and all the terrible effects of self abuse, youthful follies and excesses in mature years, such as loss of Memory, Lassitude, Nocturnal Emissions, Aversions to Society, Dimness of Vision, Nipples in the Head, &c. &c. In drinking Intoxication the vital fluid passing unobserved in the urine, and other diseases that lead to insanity and death.

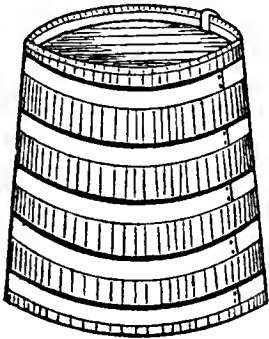
Dr. Mintie who is a Regular Physician Graduate of the University of Pennsylvania, who will agree to forfeit \$500 for a case of this kind the Vital Restorative, (under his special advice and treatment) will not cure, or for anything impure or injurious found in it. Dr. Mintie treats all PRIVATE DISEASES SUCCESSFULLY WITHOUT MERCURY. Consultation Free. Thorough examination and advice, including analysis of urine, \$5. Price of Vital Restorative, \$1.50 a bottle or four times the quantity, \$5; sent to any address upon receipt of price, or C. O. D., secure from observation, and in private case if desired, by Dr. A. E. Mintie, 11 Kearny street, San Francisco, Cal. Send for pamphlet and list of questions.

SAMPLE BOTTLE FREE.

Will be sent to any one applying by letter stating symptoms, sex and age. Strict Secrecy in regard to all business transactions.

DR. MINTIE'S KIDNEY REMEDY NEPHRETICUM, cures all kinds of Kidney and Bladder Complaints, Gonorrhoea, Gleet, Leucorrhoea, etc. For sale by all Druggists; \$1 a bottle, 6 bottles for \$5.

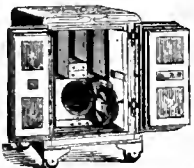
DR. MINTIE'S DANDELION PILLS are the best and cheapest **DYSPEPSIA** and **BILIOUS** cure in the market. For sale by all Druggists.

REDWOOD TANKS**F. KORBEL & BROS.**

727 BRYANT ST., S. F.,

Or at NORTH FORK MILL, Humboldt Co., Cal.

FIRE-PROOF SAFES ALL SIZES.



CHAS. WALTZ, inventor and Manufacturer of the Waltz Safe. Fire and Burglar Proof Safes, Time Locks, Bank and Vault Work, a Specialty. Expert work done in opening and repairing Safes and Locks. Beard's Patent Screw Door Burglar Proof Safes and Chests. Safes

built to order.

CHAS. WALTZ,

11 Drumm Street, SAN FRANCISCO, CAL.

Write for prices and information.

RUPTURE RADICALLY CURED by Dr. Pierce's Great Discovery. Thousands of patients cured at THEIR OWN HOMES. No Experiment! It does the Work! Drs. PIERCE & SON, 704 Sac to St., San Francisco, Cal.

J. N. KNOWLES, MANAGER

EDWIN L. GRIFFITH, JR. RETARY

ARCTIC OIL WORKS.

MANUFACTURERS OF

Sperm Whale, Elephant and Fish Oils, Skid Grease

WHALE OIL SOAP.

ESPECIALLY ADAPTED FOR VINEYARDS AND FRUIT ORCHARDS

OFFICE—28 CALIFORNIA STREET, S. F., Cal.

THE COOS BAY STAVE & LUMBER CO.

— MANUFACTURERS OF ALL KINDS OF —

COOPERAGE GOODS !

Especially invite the attention of Wine Men to their unsurpassed facilities for supplying packages from a

5-GALLON KEG TO A 160-GALLON PIPE OR PUNcheon.

Our monthly circulars enable us to execute all orders with promptness and economy. Price List on application.

OFFICE: 323 FRONT STREET,

WORKS.....BRANNAN ST., NEAR EIGHTH.

TO CLARIFY WINES,

(BOTH WHITE AND RED)

WAHL BROS.**GRANULATED ISINGLASS**

HAS NO EQUAL.

It is SUPERIOR and CHEAPER than any other ISINGLASS in the Market.

Try It. Send for Sample.

JOHN T. CUTTING & CO., Agents.,

23 CALIFORNIA STREET,

San Francisco.

CLARIFYING AND PRESERVING WINES.

The undersigned having been appointed Sole Agents on the Pacific Coast by Messrs. A. BOAKE & CO. Stratford, Eng., for their renowned

LIQUID ALBUMENS,

See to call the attention of Wine Growers and Wine Merchants to the following articles, the superior merit of which has been confirmed by Silver Medals, the highest awards given at the International Exhibition of Paris 1878, Bordeaux 1882, and Amsterdam 1883, viz:



LIQUID ALBUMEN FOR RED WINES,
Claret, Burgundy and Port.



LIQUID ALBUMEN FOR WHITE WINES,
Hock, Sauternes, Sherry and-Madeira, also for distilled liquors: Whisky, Gin, etc., etc.



WINE PRESERVER,
For Preserving the Brilliancy of the wines.



WINE CORRECTOR,
For Correcting the Roughness of Young Wines.



WINE RESTORER,
For Restoring Badly Made or Badly Treated, Harsh and Tart Wines.

A trial according to directions will prove the superior qualities of these finings. For sale in quantities to suit by

CHARLES MEINECKE & CO., Sole Agents,

314 SACRAMENTO STREET, SAN FRANCISCO.

"LE MERVEILLEUX"

— THE —

MOST POWERFUL

Wine and Cider Press

YET PRODUCED.

Patented in France, England, Germany, Belgium, Italy, Norway, Sweden, Denmark and the United States.



This press (a French invention) has been used several seasons in the wine districts of France and Germany with great success, and is now introduced to the American public for the first time.

Its advantages are: Rapidity of action and unlimited power. With a single effort 3 or 4 times more power can be obtained than with any other press known at this day. It is also cheaper, capacity considered, than any other press in the market. Model on exhibition at office of F. W. KLEIGH & CO., 51 Beale St., San Francisco, Cal.

PARE BROS.,

Sole Agents for United States,

Fresno, Cal.

Send for Circular

Valuable Patent

FOR SALE.

The Claus Improved

GRAPE-VINE TRELLIS.

LATELY PATENTED, ATTRACTS GREAT ATTENTION among vintners everywhere as far surpassing any other form by efficiency and perfection. Generally acknowledged to be a meritorious invention and an unrivaled progress in viticulture, it will pay its application tenfold. It is truly a first-class acquisition.

RIGHTS OF THIS PATENT

FOR SALE BY

AMERICAN PATENT AGENCY,

188 & 190 WEST 5th ST.

Cincinnati, Ohio.

Full descriptive illustrations, costs, etc., given by me above and the inventor

C. H. TH. CLAUS,

Cor Iowa & Keokuk Sts., St. Louis, Mo.

WOODLAND WINERY

FOR SALE.

Located at Woodland, Yolo County, Cal.

Complete in all its Appointments. Capacity 120,000 gallons. Steam Crusher, Hand Crusher, two Stills, Syrup Pan, Pumps, and everything Complete. Cooperage in best condition.

TWO-STORY BRICK BUILDING,
125x60 Feet. Fifty rods from Depot.

Three thousand tons Wine Grapes raised here last season. This is a rare chance for clearing in this business. For full particulars inquire at office of

LANDBERGER & SON,

123 California Street, S. F.

— OR TO —

CLARK & CLEVER, Proprietors,

Woodland, Cal.

HONOLULU CASTLE & COOKE, SHIPPING AND COMMISSION MERCHANTS

Honolulu, Hawaiian Islands.

—AGENTS FOR—

THE KOHALA SUGAR CO.,
THE HAIKU SUGAR CO.,
THE PAPAIOU SUGAR PLANTATION
THE WAIALUA SUGAR PLANTATION
THE PAIA PLANTATION
A. H. SMITH & CO.,
THE N. E. M. LIFE INSURANCE
CO. BOSTON.
THE UNION INSURANCE CO.
OF SAN FRANCISCO,
THE GEO. F. BLAKE MFG CO.,
STEAM AND VACUUM PUMPS,
D. M. WESTON'S CENTRIFUGAL
MACHINES.

WM. G. IRWIN & CO.

SUGAR FACTORS AND
COMMISSION AGENTS

Honolulu, H. I.

—AGENTS FOR—

HAKALAU PLANTATION.....Hawaii
NAALEHU PLANTATION.....Hawaii
HONCAPO PLANTATION.....Hawaii
HILEA PLANTATION.....Hawaii
STAR MILLS.....Hawaii
HAWAIIAN COM'L & SUGAR CO.....Maui
MAKEE PLANTATION.....Maui
WAIHEE PLANTATION.....Maui
MAKEE SUGAR CO.....Kauai
KEALIA PLANTATION.....Kauai

Agents for the

OCEANIC STEAMSHIP COMPANY.

ANGLO-NEVADA
Assurance Corporation
—OF—
SAN FRANCISCO, CAL.
FIRE and MARINE.

Subscribed Capital \$2,000,000.
OFFICE: 410 PINE ST.

DIRECTORS:

LOUIS SLOSS, J. W. MCKAY,
J. B. HAGGIN, W. F. WHITE, JR.,
J. ROSENFELD, E. E. KYRE,
J. L. FLOOD, E. L. GRIFFITH,
G. L. BRANDER, J. GREENBAUM,
W. H. DIMOND

This Corporation is now prepared to receive applications for Fire and Marine Insurance.

G. L. BRANDER, President
J. L. FLOOD, Vice-President
C. P. FARNFIELD, Secretary
J. S. ANGUS, Assistant Manager

Bankers: The Nevada Bank of San Francisco

A. ZELLERBACH,
IMPORTER AND DEALER IN
BOOK, NEWS, FLAT, WRITING
PAPER.

MANILA, WRAPPING AND STRAW PAPER,
Colored, poster and Tissue Paper, Also Envelopes and Twine.

419 & 421 CLAY STREET.

A few doors below Sansone, San Francisco, Cal.



THE SOUTHERN PACIFIC CO.,
Respectfully calls attention to the FIRST AND
PREFERRED SERVICE of the SOUTHERN PACIFIC
R.R. and its principal

SUMMER AND WINTER RESORTS OF CALIFORNIA
WITH SPEED, SAFETY AND COMFORT.

Pescadero, Menlo Park, Santa Clara,
San Jose, Medicine Mineral Springs,
Gilroy Hot Springs.

-MONTEREY-

THE QUEEN OF THE PACIFIC COAST
Camp Goodall, Aptos, Loma Prieta,
Monte Vista, New Brighton, Sequel,
Camp Capitola, and

SANTA CRUZ.

PARAISO HOT SPRINGS.

EL PASO DE ROBLES

HOT AND COLD SULPHUR SPRINGS
And the only Natural Mud Baths in the World.

This Road runs through one of the richest and
most fertile sections of California, and is the only line
traversing the famous Santa Clara Valley, celebrated
for its productivity, and the picturesque and park-
like character of its scenery, as also the beautiful San
Benito, Pajaro and Salinas Valleys, the most flourish-
ing agricultural sections of the Pacific Coast.

Along the entire route of the "Northern Division"
the tourist will meet with a succession of extensive
Farms, Delightful Suburban Homes, beautiful gar-
dens, innumerable orchards and vineyards, and Lux-
uriant Fields of Grain; indeed a continuous panorama
of enchanting Mountain, Valley and Coast scenery is
presented to the view.

Characteristics of this Line:

GOOD ROAD-BED STEEL RAILS ELEGANT CARS,
LOW RATES. FAST TIME. FINE SCENERY

TICKET OFFICES—Pass. near Depot, Townsend street,
Valencia St. Station, and No. 613 Market Street,
Grand Hotel.
A. C. BASSETT, H. B. JUDAH,
Superintendent, Asst. Pass. and Tkt. Agt.

S. P. COMPANY. SHIPPING.

QUICK TIME AND CHEAP FARES

To Eastern and European Cities

Via the Great Transcontinental All Rail Routes

OF THE

SOUTHERN PACIFIC COMPANY.

(PACIFIC SYSTEM)

Day Express and Emigrant Trains make prompt con-
nections with the several Railway Lines in the East,

CONNECTING AT

NEW YORK AND NEW ORLEANS

with the several Steamer Lines to

ALL EUROPEAN PORTS.

PULLMAN PALACE SLEEPING CARS

attached to Overland Express Trains.

THIRD-CLASS SLEEPING CARS

are run daily with Overland Emigrant Trains.

No additional charge for Berths in Third-class Cars.

25¢ Tickets sold, Sleeping-car Berths secured, and
other information given upon application at the Com-
pany's Office, where passengers calling in person can
secure choice of routes, etc.

Railroad Lands

FOR SALE ON REASONABLE TERMS

Apply to, or address,

W. H. MILLS, JEROME MADDEN,
Land Agent, Land Agent.
C. P. R. R. SAN FRANCISCO, S. P. R. R. SAN FRANCISCO

A. N. TOWNE, T. H. GOODMAN,
General Manager, Gen. Pass. & Tkt. Agt.
SAN FRANCISCO, CAL.

REWARD! OF \$10-\$50 TO EVERY PERSON
sending us valuable information of school vacan-
cies and needs. No trouble or expense. Send stamp
for circulars to CHICAGO SCHOOL AGENCY,
185 South Clark Street, CHICAGO, ILL.
N. B. We want all kinds of Teachers for Schools
and Families.

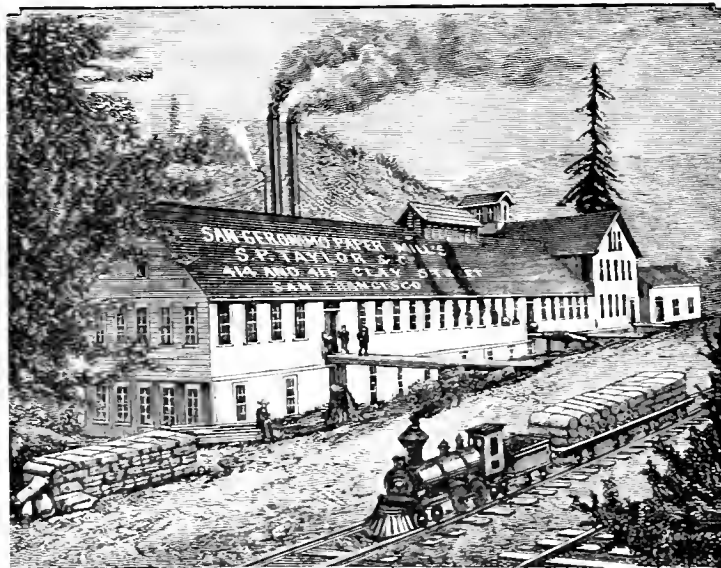
1856.

PAPER.

1886.

S. P. TAYLOR & CO.

Manufacturers of and Dealers in Paper of all kinds.



Book, News, Manila, Hardware, Straw and Tissue

PAPERS.
Paper Bags, Twines, Etc., Etc.
PRINTED WRAPPERS A SPECIALTY.

Proprietors: Pioneer and San Geronimo Mills. Agents for South Coast (Straw) Mills.

414 and 416 CLAY ST., SAN FRANCISCO.

OCEANIC STEAMSHIP COMPANY.

Carrying the United States, Hawaiian and Colonial
Mails for

HONOLULU,

AUCKLAND,

and SYDNEY

WITHOUT CHANGE.

The splendid new 3,000 ton Steamer



ALAMEDA

Will leave the Company's wharf, corner Steuart
and Folsom streets,

SATURDAY, JULY 31st at 2 P. M.

Or immediately on arrival of the English mails.

FOR HONOLULU AND RETURN

The Steamer

ZEALANIA.....Monday, August 2nd

For freight or passage apply at office, 327 Market st

JOHN D. SPRECKELS & BROS.,

General Agents.

OCCIDENTAL & ORIENTAL STEAMSHIP COMPANY.

for JAPAN and CHINA.

Steamers leave Wharf, corner First and Brannan sts.,
at 2 o'clock, P. M., for

YOKOHAMA and HONGKONG.

Connecting at Yokohama with steamers for Shanghai.

1886.

STEAMER. FROM SAN FRANCISCO.
BELCHER.....SATURDAY, JULY 31st
SAN PABLO.....SATURDAY, AUGUST 21st
O. E. N. C.SATURDAY, SEPT. 11th
GALIC.....THURSDAY, SEPT. 30th
BE GIO.....TUESDAY, OCTOBER 19th
SAN PABLO.....TUESDAY, NOVEMBER 9th
O. E. N. C.WEDNESDAY, DEC. 1st
GALIC.....TUESDAY, DECEMBER 21st

EXCURSION TICKETS to Yokohama and return
at reduced rates.

Cabin plans on exhibition and Passage Tickets for
sale at C. P. R. Company's General Offices, Room 74,
corner Fourth and Townsend streets.

For freight apply to GEO. H. RICE, Freight Agent,
at the Pacific Mail Steamship Company's Wharf, or
at No. 202 Market street, Union Block.

T. H. GOODMAN Gen. Passenger Agent.
LELAND STANFORD President

SPRAY PUMPS.

Fruit Growers, Farmers, and all desiring to purchase
a spray pump that is far ahead of all others in the
market, as it is the ONLY pump made with all metal
valves, should buy the "CLIMAX SPRAY
PUMP," all complete with tube, spray nozzle,
plain nozzle, galvanized iron can, six feet of best Rubber
Hose; capacity, 2 1/2 gallons; all ready to use. Price,
\$15.00. Good Agent wanted at once. Send for
Circulars. 211 California St., San Francisco, Cal.

FREDK WM. LUTTGEN, COMMISSION MERCHANT.

(AP O BOX 509) 51 Warren St., New York.

Solicits consignments of California Produce, and
orders for the purchase of Merchandise, generally.
Eastern Agent for Eclipse Champagne.

JAMES HUNTER

GAUGER OF WINES AND SPIRITS.

(Established 1851.)

OFFICE-323 FRONT STREET.

San Francisco.



IMPORTERS OF ALL KINDS OF

Printing and Wrapping Papers.

401 & 403 SANBOME ST., S. F.

THE SAN FRANCISCO MERCHANT.

THE ONLY VITICULTURAL PAPER IN THE STATE.

Devoted to Viticulture, Olive Culture, and other Productions, Manufactures and Commerce of the Pacific Coast.

VOL. XVI, NO. 8.

SAN FRANCISCO, JULY 30, 1886.

PRICE 15 CENTS

THE RAISIN GRAPE.

The following is the paper written by Robert McPherson of Orange, and read at the Pomological Meeting at Anaheim, on Thursday, July 1st, 1886:

I need not make an apology for not being prepared to do justice to the subject, as everyone acquainted with me knows that I have not the leisure to sit down and take the time that justice to this subject demands. The importance of our raisin industry is such that it should command the careful consideration of the best minds of our country. This importance is felt not only in the fact that it is an industry which may support an immense number of people, but it now has and will have much to do with the health of our whole country. This latter point is well worth the examination and study of the most scientific minds, as the result of their investigation of the subject would be of great benefit, by proving the health-giving properties of our raisin grapes. It is an established fact that where the best raisins are produced there is the best place for people suffering from lung or bronchial affections. It is known, too, that in cases of exhaustion a handful of raisins will do very much to revive sunken energies; and it is true, too, that where the nervous system has been depressed for a long time the continued use of raisins will very much improve its tone. There is high authority on this subject and for the benefit of both producers and consumers this subject should be studied and the knowledge acquired and diffused all over the country. Were this properly understood the consumption of raisins would be much greater than at present. Among ourselves and in our own families, if we would put them into more general use, we would more thoroughly realize the benefit. Let any one try them when on a camping trip. A handful of raisins, a piece of bread and a cup of water is relished; and work can be performed on such a diet as easily as upon a diet of animal food. I would not adopt the vegetarian system, but I believe that much benefit would result from a more liberal use of raisins in our diet.

In this essay on the subject of "Raisin Grapes," I do not presume it was intended that I should treat particularly of the different varieties, but rather of the characteristics of varieties, and in doing this I shall

not pretend to do more than treat lightly of other varieties than the Muscatel, or Muscat of Alexandria, so-called.

The varieties included in the list of raisin grapes as cultivated with us here in California are the Muscatel (or Muscat of Alexandria,) the Sultana, the White Corinth, Black Corinth and some other varieties not well known and not largely cultivated. The Sultana, White Corinth and Black Corinth are seedless, and the manner of pruning, cultivating and handling differs materially from that of the Muscatel; but as these varieties are not extensively cultivated among us in my section, I will only speak briefly of them, and that more especially as to the manner of pruning, the quantity produced and the profit derived from them. These vines require canes of considerable length to be left, which need to be supported by stakes, growing, at the same time from short spurs, the wood for the following year. With us the White Corinth and Black Corinth do not produce in sufficient quantities to make it profitable, though the flavor of the fruit is such that if it did produce largely it would be a favorite.

The Sultana is of very recent planting, and has not been sufficiently tested here yet to decide whether it will acquire that degree of perfection that it does in some other parts of the country where it is grown.

The Muscat of Alexandria, or Muscatel, is considered the raisin grape of the country. It is not only the best grape for raisins, but it is well adapted to shipping and is used to some extent in the manufacture of wine and brandy. It is, with us here in the southern portion of the State particularly, the favorite, because some of the wine grapes and shipping grapes do not do so well. With us at Orange and vicinity, including Anaheim, Tustin and Santa Ana, and extending up the valley nearly to Los Angeles, it seems to be especially at home. The growth of the vine is abundant, and when the vine has acquired sufficient age it produces annually a good quantity of fruit. On the higher and warmer lands the fruit ripens considerably earlier, giving it an advantage in the curing, as at that time we have the long, warm days for drying; and the nights are shorter and with much less fog.

In growing the Muscat of Alexandria during the first years of its cultivation we found that we were making a mistake in its pruning—that is, pruning it with too few

buds, the result being that the growth of the wood was too heavy, causing the fruit to drop from the stem. This falling of the fruit was so extensive that in the earlier years of the raisin business here it was considered somewhat of an uncertainty whether the vineyards would set heavy enough to produce profitable crops. As time rolled on, however, we discovered the fact that the vine must not be pruned too closely; that we must leave a sufficient number of spurs, containing a sufficient number of buds, so that the canes will not make such excessive growth as to produce this dropping of the fruit. We find that in the earlier years of the vineyards this dropping of fruit is much greater than it is after the vines have acquired some considerable age. This is proven by the fact that in all our oldest vineyards the quantity of fruit produced varies very little from year to year, while that of the younger vines is uncertain, making a difference, one year with another, of 30 or 40 per cent.

In leaving spurs on the vines for the production of fruit, it is a matter of considerable importance what length they are to be grown, as it is a fact that the bud nearest the stock is the bud that produces the finest fruit, and that the one following may produce a larger quantity of fruit on the stem, but yet not so good in quality, and as we go farther from the stock the fruit deteriorates in quality; and while our section of country has done much in the past to keep up the quality of the grape produced and raisin manufactured, we are arriving at a time when we may go to the opposite extreme. Vineyardists finding that by more liberal pruning the quantity is increased, the tendency to-day is that many will prune so liberally that the quality of the fruit will be materially affected. The true policy would be to prune so that the quality is kept up, even if the quantity is not so great.

There is another important point to be observed in the pruning of the vineyards for raisins, and that is to keep the vine low, as it is a fact that our finest fruit comes from the lowest vines. It may be that in localities that require much summer irrigation, the heads should be kept up to protect the fruit from the dampness caused by irrigating the ground; but with us at Orange, we have no necessity for irrigating our vineyards in summer, consequently the surface of the ground is sufficiently dry any-

where on the warmer lands, even if the fruit lay entirely upon the ground. On the low lands this would not be safe, yet the heads should be kept no higher than is necessary to keep the fruit from the effects of the moist soil and escaping evaporation from the same.

I know of no better rule to give a vineyardist not well up in the knowledge of pruning, in regard to the number of buds to leave, than this: Whenever the vine produces canes of large size (for instance the size of the thumb) it should next year carry a greater number of canes. The canes should not grow much larger than the little finger, as the fruit does not set on the stem when the wood grows too heavy.

SUCKERING AND SUMMER PRUNING.

None of us need be told of the necessity of suckering, (as we call it) which consists of taking off the canes that grow under the ground and the canes growing on old wood, or, better expressed, we leave the canes that have grown on one-year-old wood which has itself grown on one-year-old wood. Of course, we find it necessary sometimes to leave some of those canes growing in blind bud that we may balance the vine, as we should strive to make the framework of our vines form the framework of an imaginary basket.

There is yet considerable difference of opinion about the necessity of summer pruning. There is a necessity to do some clipping, (not pinching as some would advocate for it is too slow,) but that is on those canes that are inclined to run out laterally, covering the surface of the ground and making late cultivation, which is necessary to secure good fruit, an impossibility. These may even require a second cutting, which like the first should be done before the cane grows woody or be done before the cane carries so much sap that the cutting of the cane may throw too much sap where it has not been, and where it is not needed. The cutting of canes that have advanced too far often causes a shock to the vine that seriously affects it to its detriment.

SULPHURING.

At the present time one who wants to consider himself an authority on sulphuring should not say anything, as there are so many different opinions on the time and number of applications, and where it should be put. I do not have any authority to

say that grapes should be sulphured before the flowering or opening of the blossom, but I can say that until I commenced the use of sulphur I could get no good fruit on account of mildew, but by the use of sulphur I have never failed to produce large and perfect fruit, and I always apply the sulphur before the opening of the blossom. I am satisfied also that sulphuring in the opening blossom will effectually prevent mildew, and I have met those of the opinion (and very well founded, too,) that it is the time to sulphur, advancing the theory that *couleur* is brought about by insects, and that sulphur is an insecticide, and hence the benefit. I have met many of that opinion, but on examination I have never yet seen sufficient evidence to cause me to believe that such was the cause. I am more inclined to believe that the minute insects and flies are attracted by the decomposition of the blossom and fruit, and that the webs seen there so frequently are put there for the purpose of catching the flies and insects that gather around this decomposition. I consider *couleur* as being caused more by changes and conditions of atmosphere than any other cause. Any considerable variation of temperature between day and night produces the result. This can be noticed in sections where the fruit does not stay on, and is especially noticeable where the Muscat is planted on coarse sand, which heats up considerably during the middle of the day and becomes very cold during the night. This class of land does not produce Muscat grapes in such quantities as land not subject to these conditions. It must not be understood that our gravel soils come under this head, as they do not cool off to such an extent, as many a person has discovered by sleeping upon them on a cold night. The manner of applying the sulphur the second time also differs a great deal, some throwing it in handfuls upon the fruit, leaves or anywhere except where it should be, while scientists may say that we should not throw sulphur on the ground—that the ground will absorb it. I say that we can sow it on the ground and pass through the vineyard and feel that it is not all being absorbed, as the air becomes well filled with the sulphur vapor, so much so that it will effectually destroy the fungoid growth when it has taken a pretty strong hold. I have seen a crop saved by throwing the sulphur on the ground, when the owner thought it was ruined. My reason for favoring this method is that if the fruit is of considerable size the sulphur should not be thrown on it. I have seen the fruit so strongly impregnated with sulphur at the time of packing to ship fresh, that some men could not endure the strong vapor that was escaping from it at the time. The quality of the fruit for raisins is affected, and it really impairs its value in the market. It is much better to avoid this error by scattering the sulphur on the ground when applied the second time. I do not believe that there is danger of mildew even with one application, except for the second crop.

KIND OF SULPHUR.

We have our choice between the native and the French sulphur. We have used the California product except two years and find that from fifteen to twenty pounds per acre will actually prevent this growth, and I see no reason why we should use the foreign product. The gross sulphur can without sublimation contain the useful material, and I see no necessity of going to the expense of preparing the native sulphur and

removing this gross material from it, as if we apply it before the opening of the blossom it does not harm the vine; and especially is this the case in the second application, when it is thrown on the ground.

APPROACHING MATURITY.

Having now treated in a very crude and disjointed manner, of the conditions of the vine previous to the ripening of the fruit, I will touch briefly upon the treatment of the grape as it approaches maturity. We have read frequently that on the low-headed vines of Spain, the growers dig the dirt away from the stock that the fruit may hang around it. This I have heard contradicted by what I considered better authority. Our present Superintendent, Mr. E. B. Willis, spent considerable time among the vineyards of Spain, visiting the principal vineyards around Malaga, Valencia, Denia, Alacante and throughout the Granada district. He says that while there may be individual growers who pursue this course, yet most of the producers of the best raisins raise the soil in little mounds around the vines to support the grapes. This preserves the clusters in better shape and renders them much less liable to injury in packing. While we cannot afford to expend so much labor on the growing crops of grapes as the Malaga people do, on account of the great difference in the cost of labor (ours costing four or five times as much as theirs,) we can afford to pay proper attention to a few facts. When we see one vine growing an unusual amount of fruit, while its neighbor, eight feet away, appears much stronger, growing a larger amount of wood, we must remember that the roots of the stronger vine are thrown out so as to take away from the weaker one a part of its support, (for in common ground they throw out roots several times the distance allowed them,) and we should relieve the vine of its surplus fruit, else it will not mature properly. The growers of grapes at Malaga do much more than this. They clip the imperfect fruit from the stem while growing, and thus they secure more perfect clusters. Our grapes do not ripen as early as those of Malaga, hence those who lose any time after the fruit is ripe lose a great deal, for it requires much more time and trouble to cure raisins that ripen two weeks out of season. While twelve days will suffice for curing early fruit, it often requires three times that period to accomplish the same result later. The later fruit will often carry only 19 per cent of saccharine matter, while rich, sweet, early fruit contains as high as 27 per cent.

Our method of drying by the use of trays is very convenient, but there is no question at all that the raisin can be cured more perfectly upon the ground if the place selected is free from dust. If the ground is used, there is need of protection of some kind. In raisins dried upon the ground, we find none with the skins perfectly smooth on one side and the seeds settled down near it, having the appearance of rot, the air not penetrating between the tray and the skin so as to cure the fruit on all sides equally.

It is unnecessary to give at length any method of drying, as we all understand that pretty well now. The greatest difference between us now is that we do not all understand when the grape will do to lay down, as we call it. I do not know that I can tell any one not experienced when that time is. The grape should have taken on its amber color, the seed its natural appearance, and generally the stem will show

by its drying up near the cane, and it should contain sugar enough so that the sense of taste will tell us; or if we have a saccharometer and the sugar is measured it should contain about 21 per cent or thereabouts. If the fruit is grown on ground not rich enough to make this amount, that fact would inevitably show itself by the raisin not being plump, the grooves would be deep and few, the corresponding ridges sharp and the raisin would be perfect and acid. If the fruit is over ripe, then the raisin will be dark and lose some of its richness, but nevertheless will be sweet and will fill the requirements of a good product; the grooves will be numerous and shallow; the ridges correspondingly rounded and the raisin will have a plump body. It will be pliant and if pressed will to some extent resume its shape; and when the fruit is picked just right, it is more amber and its flavor richer.

THE POINTS OF A GOOD RAISIN.

The character of the raisin is made up of a number of points, which are about as follows as regards importance: On layers—size, flavor, bloom, plumpness, thickness of skin, size of seeds, proximity of berries to each other on the stem and color of the stem. No fruit is expected to possess the most favorable side of all these characteristics, but no grape can lay claim to superiority that has few of them. Many localities can produce raisins of good flavor, but the large bloomy fruit with small seeds and thin skin will outsell them, and that really is what determines which is superior. Some of these points can be improved upon, as: bloom is kept on by careful handling, plumpness is secured by picking the fruit when ripe, size by correct pruning, good cultivation and irrigation if necessary, flavor by giving the vine all it requires as the fruit is growing. No raisin can attain to perfection if it lacks anything that its nature calls for; as, for instance, a climate suited to its delicate power of resistance during its growing period. If the climate is too severe, it will adapt itself to such condition by thickening the skin and growing harder and more seeds. If any material of the soil is too full and abundant, either in vegetable or mineral matter, the flavor is affected. Too much moisture in the soil stimulates wood growth and fills the fruit with water that has to be dried away, leaving the raisin thin and uninviting in appearance.

The method of handling the grape from the vine to the raisin is too thoroughly understood to need more than a passing mention. I have almost entirely left that out of this paper, but will refer briefly to the manner of handling the fruit when taken from the drying beds. The process called sweating is simply evening the cured fruit. It is not equalizing separate stems cured to different degrees of perfection, but the fruit upon the same stem. If a stem is not cured it should not be taken up from the tray, or from the ground, but when a portion of the stem is wholly cured and some part is not, then sweating is necessary in order that one part of a cluster may assist in curing the balance of it, which suggests that we do not know how much curing is done by the cause of moisture through the stems. If the weather in curing is not extra hot or dry, but little sweating is needed, but if hastened by extreme heat or hot weather, then the unevenness is greater and will require more time to equalize. If the fruit is taken up too green it may sour, or

sugar as we call it. In early times they used to tell us that our raisins were not so good as others because they did not sugar, but that complaint is never heard now, as this sugaring is only too frequently observed on account of fruit being taken up too green.

Right here it may be mentioned that we are putting 20 pounds of fruit into too close quarters. If our boxes should be made half an inch higher, with other dimensions the same, we would find that our fruit would keep very much better. Last year we increased the size of our boxes one quarter of an inch. The manufacturers of boxes do not like this, as it does not admit of the working up into raisin boxes of remnants, not of say refuse stock. The time has come when we must insist upon good lumber for these boxes, as it has much to do with the price realized. We should not only have good boxes but they should be kept clean and neat, as the purchaser will suspect fruit of any brand which he finds in a dirty or slovenly kept package.

STYLE OF PACKING.

The style of packing generally adopted now is to carefully hide the stems, though that style is often criticised. It does the party making these criticisms very much good, and makes him feel that he has discovered something that no one else has. The fact is that the present style of packing was adopted after very severe criticisms on the very style of packing which is now advocated in some quarters; that is, that the stems should be packed one above the other, so that they show the exact quality of the fruit, size of the stem and so forth, as they appear in the box. I notice that one of our San Francisco houses in writing upon this subject lately sustains the present style of packing, hiding the stems. Certainly a box so packed presents a much more inviting appearance than one packed so that the stems show.

MANNER OF GRADING.

Perhaps no two packing-houses in the State grade exactly the same, and no one can present himself as authority on this subject; but the style adopted by us is: London Layers, Layers and two grades of Loose Muscatel, with one now and then of a higher grade which we can term Dehesa. It is claimed by some that we should have but one grade of Layers, which should be London Layers, and that all not packed in Layers should be taken from the stems and graded in a Loose Muscatel, making two grades, which they would do by using a mill for assorting, as it is perfectly honest in its work.

FACING.

It is now becoming common to face Loose Muscatels, by which is meant laying the top of a box of raisins over in some design—straight rows, circles, or the form of some object, adding a cost of about 12½ cents per box, but making the fruit present a much more attractive appearance, and sell for enough more in the market to pay for the extra work, besides the satisfaction of feeling that the goods are placed upon the market in a more creditable shape.

I cannot close this essay without making some little apology for the crude condition in which I am compelled to present it. The press of important business has rendered it impossible for me to prepare it as I should have liked, but I submit it in the hope that you will take this fact into consideration and be lenient in your judgment of its merits.

THE EDITOR'S TROUBLE.

There was a certain man of Corsica named Columbus, a sailer of the seas.

The same came to America after many days and nights of tempest tossing and sea sickening.

And in the course of many years this America became a great country. So much so that the rulers of the land did set apart one day as a day of rejoicing.

And this day was the fourth day of the seventh month, to wit July.

And it came to pass that, in the year of our Lord, one thousand eight hundred and eighty-six, there dwelt in the land of California, a certain editor of a well known viticultural paper.

And this editor having drawn his weekly stipend of two bits, betook himself into the rural retreats.

And with him on the same ferry boat was a certain party of females, that drew him unto them so that he followed them respectfully from afar.

And the number of these females was forty and four. Their ages moreover ascended from seven unto seventy and seven. Yea, and they were all joyful, for was it not the great day of the high festival.

They carried among them of provisions many large baskets full. So that there was no danger of a famine in the land.

And bottles, both round and square, were outlined among their many skirts, but not on the outskirts.

After much journeying and many perispirings, for the weather was warm, they arrived at a certain place called Lake Merritt, on the other side of which was a dairy.

And it became noised abroad that rum and milk or whisky and milk were of use to quench the thirst. Yea verily they were of great thirst for the day was hot.

But they could not walk across the waters of the lake, so they made for themselves that which is called a see-saw.

And the old and the young played upon that plank until they became grievously sore at the stomach, and, in fact, were see-saw-sick.

But their weight was uneven. So much so that three maidens who were slim in shape were barely able to balance a more mature matron. Yet they weighed her up until she ascended far untoward the heavens.

Verily it seemed unto her that the angels sung, but it was the laughter from below.

And there was no man in the party.

But the editor gazed from afar.

After much see-sawing, the angel that ascended unto the air, descried a small boat far on the deep waters of Lake Merritt.

And they hailed this boat and bargained with the boatman for one quarter of silver, that he would carry them across the lake, even unto the dairy.

And he prepared to do so.

But there was much tribulation on the way, for the wind did blow and the waters rushed furiously.

And then there was sea-sickness, yea even after the see-saw-sickness because that the waters were turbulent.

Even the boat tipped unto the water's edge and there was much screaming and wailing and gnashing of teeth.

And they stood upon the bulwarks and tore their hair, or what remained unto them in the stead of hair.

And many false fronts fell into the waves and were devoured by the fishes.

But it came to pass that after much trouble and tribulation, they at length

reached what is called dry land, and they rejoiced exceedingly.

Thereupon they prepared unto themselves a great feast, even as the feast of the barley loaves and the fishes. For had they not fed the fishes. And they were all an hungered and suffered much pain in that region which is below the belt.

And amongst them was a certain school marm which ruled them with a rod of iron, taking unto herself the duties of the captain of the host.

And she was a hostess with much judgment and sound discernment.

She opened the forty and four baskets and spread the contents on the ground.

And the ants, and the snails, and the spiders did eat thereof.

After much noise and much merriment, it came to pass that the forty and four maidens, whose ages were from seven unto seventy and seven, did seat themselves upon the dust and sand of the sea shore.

Whereupon there was a great onslaught, and the last state of the contents of those baskets and bottles was worse than the first.

And they picked up of the fragments that remained but one basket full and no bottles full. For they were an hungered and a thirst.

And the heat of the sun was great, whereupon they lay themselves down to rest.

And they slept the sleep of the sluggard. But it came to pass that while they slumbered the seas by the sea shore approached unto them.

And it touched the hems of their garments. Yea even it ascended higher and above their boots. And they became wet about the skirts.

Till of a sudden they arose with a great shriek and they shrieked themselves hoarse. For the sea had been no respecter of pedal extremities which were all wet.

Therefore they disrobed themselves even unto the knees, for they were unknavey. And while their garments did dry by the heat of the sun, they waded even into the water, yea even up to their knees.

And their skirts were held on high, even above their heads. So much so that the faces could not be discerned.

There were eighty and eight legs and there was much variety among them.

But their feet became cold and were even wetted by the water and a chill came upon them.

Then saith the school marm, Behold we have a match, let us gather together some sticks and light even a fire whereby we can warm ourselves.

And they did so. For the forty and four persons whose ages were from seven unto seventy and seven did gather their skirts above and below and around one match lest the winds should come and it should be extinguished.

But the winds were merciful and came not so that the fire was lit. And it burned fiercely so that they soon became dry.

And they became so dry that there was again a thirst upon them. But they had not the waters to drink excepting that there was salt, even the waters of Lake Merritt.

But it happened that a certain woman which was of the party, had conceived much wisdom with her many years.

For she had carried concealed in a quiet place one bottle which contained coffee.

And it was cold coffee. But they hid themselves unto the dairy obtaining thence a pot which is called a kettle and which was black.

But when all things were prepared the coffee was not, neither could it be found. And they hunted high and low yet they found it not.

For it so happened that among them was a maid of seven Summers. And she was filled with mischief even far beyond her years.

And it came to pass that she wandered by the seashore solitarily, throwing sticks and stones far into the deep waters of the lake which was called Merritt.

So much so did she throw them that there became a famine on the shore and there was a dearth of sticks and stones.

But she espied afar off a bottle. And that bottle was corked.

So she threw it with her whole strength far into the lake. Then she gazed upon and speculated upon it whither it would land, upon the north shore, upon the south, upon the east or upon the west.

And this speculation was like unto a stock market, for the bottle did bob up and down serenely. And at one time you saw it and then again you did not see it. For it was under the waters.

But she wearied of the watching and ventured forth among her elders, all of whom still cried aloud for their bottle, being dry.

And they asked of the seven summer maiden had she seen that bottle for which they were greatly concerned.

Thereupon the maiden paled and trembled with fear from sudden fright. But she returned unto consciousness after much dipping in the deep waters of the lake.

And it was so that she spake unto them and pointed out the place where the bottle did bob. But they got it not for the waters were too deep.

And they mourned their loss. But lo and behold they appeared unto them from afar a certain animal which was called a cow.

And they "shooed" that cow like unto they "shoo" hens till they caught her.

Then two which were braver than the rest held that cow by the ears, for there were no horns upon her, she being a poley, and by the tail.

And a third venturesome spirit did milk the cow till they gathered together one hat full. Yea, it was even a large hat of the most modern make, and it held six quarts full.

And they quenched their thirsts with much satisfaction and were no longer dry. But the end was not yet.

They turned themselves once more unto the basket which was filled with the fragments of the feast that they might eat.

And lo, they came upon a herd of swine which were ravenous and had partaken of the fragments. For the food was eaten and the basket was overturned.

Then they chased those pigs but it availed them nothing.

Yet among them was a sick pig, yea, even a dropsical pig, for it dropped upon the earth and was very fat.

And compassion entered into the heart of a maiden whose age was uncertain, and she pitied the pig and offered it sustenance.

Yea, even she brought it water in a lordly glass that its thirst might be quenched and its strength restored so that it should join the herd of smaller swine.

But the old sow heeded not, neither would it drink, for it knew not a glass, knowing only a trough. And a glass and a trough resemble not one another.

And this was a knowing sow, and it closed one eye and it whisked its tail. But it could not remove a certain fly that was upon the large of its back and which troubled it.

So the maiden raised her foot to remove the fly and did scratch the big pig's back.

And the big pig did know that ancient proverb "you scratch my back and I will scratch thy back."

For it was an educated pig and had learned much learning within the confines of the five cent show tent.

Therefore the pig did of a sudden rise up and the maiden, whose age was uncertain and whose foot did rest upon the large of the back of the pig, did fall upon her back and thus was her back scratched.

And the pig went on its way grunting, for one good turn deserves another.

Then the sun beginning to set in the heavens, and there being no Joshua which could command it to stand still, the party of maidens whose ages did range from seven unto seventy and seven years, did gather themselves together and set forth upon their return journey.

And many were tired and not a few were cross, and their hair was disheveled.

But on the morrow when all were rested, they did proclaim with a loud voice, one to another, that there had been much joy among them and that never was there such a glorious Fourth.

And all these things that I spake unto you are not true for I did not see them and I was not even concealed among the sands by the sea shore.

Here endeth this Fourth of July.

THE GRAPE CROP.

The following additional particulars, concerning prospects of the grape crop, are interesting. We regret that a full report has not been received from Sonoma County.

FROM FRESNO.

Since my last letter, I have investigated the coming grape crop a little closer, and found that some varieties do not bear near as much in some localities as they did last year, and some varieties set but indifferently. From all the information I have been able to gather up to date, I am inclined to place this year's vintage at from 13,000,000 to 14,000,000 gallons. M. DENICEE.

July 21, 1886.

FROM SAN DIEGO.

Mr. G. F. Merriam of Escondido, San Diego County, writing to the MERCHANT says: In this section the ravages of coulure will not be so serious as in previous years. From one-third to one-half the grapes are left with a large second crop setting. Maturo sets a particularly large second crop. Out of forty varieties the Sauvignon was the least affected. Muscats got through pretty well by leaving twelve to twenty spurs of three eyes each at last pruning, but I am of the opinion that we shall have to adopt long pruning with that variety.

FROM CLOVERDALE.

Two weeks ago I would have said there would be a gain over last season of 120 per cent., but on looking around more particularly after the effects of the hot spell, I think I can only count on 75 per cent. gain and may fail on that. Our Muscats for a while looked uncommonly good, but they have lost their berries and become sun burned. From reports I saw in the MERCHANT and from other sources, I think if we make 150 per cent. increase over last year we will do well.

We have had some mildew but not very much; it came with the north wind and almost always struck the north side of the vine first, in fact berries on the side exposed to the wind would be covered, and the other side almost clear. As soon as the wind shifted a few days it seemed to stop.

J. G. Heald.

July 18, 1886.

THE WINE INTERESTS OF FRANCE.

The total wine crop of France for 1885 was 753,839,500 gallons, or 164,962,938 gallons less than in 1884 and 361,167,978 gallons below the average of the last ten years, being a falling off of over 32 per cent., and, with the exception of 1879, the poorest crop since the disastrous years of 1852 to 1856.

Besides the above there was produced in 1885 104,996,230 gallons of wine called "Vin de Mares," made from the residuum of the grape with the addition of sugar and wine made from raisins in the following proportions:

	Gallons.
Vin de Mares.....	45,452,321
From raisins.....	59,543,918
Total gallons.....	104,996,230

and being an increase of 28,783,194 gallons over 1884, when the quantity of these wines was 76,213,045 gallons.

The reduction of the duty on sugar has undoubtedly been an important factor in the increase of the wine made from the residuum of the grape, 11,887,650 gallons more of that article being made in 1885 than in 1884.

The diminution of last year's product occurred mostly in the southern department, while in the eastern there was a general increase, and in the central no material change. There was a decrease in forty-five departments, and an increase in thirty-one, the most important being the following:

DECREASE.

Departments—	1884.	1885.
Aude.....	4,371,771	2,046,043
Ariège.....	161,984	30,574
Charente-Inférieure.....	1,144,819	69,162
Charente.....	235,571	157,036
Gard.....	655,040	435,190
Gers.....	1,006,580	443,581
Gironde.....	1,338,183	1,076,056
Haute-Garonne.....	1,266,643	575,968
Hérault.....	2,575,704	2,148,130
Haute-Marne.....	403,508	256,008
Loire.....	290,290	52,199
Loire-Inférieure.....	1,395,000	527,000
Marne.....	924,043	372,685
Pyrenees-Basses.....	121,737	42,219
Pyrenees-Hautes.....	227,641	40,818
Pyrenees-Orientales.....	1,407,477	806,307
Tarn.....	749,447	393,182
Vendée.....	1,128,228	374,004
Vienne.....	1,227,740	705,560

INCREASE.

Departments—	1884.	1885.
Ain.....	324,126	408,621
Allier.....	135,769	589,213
Cote d'Or.....	554,329	1,102,082
Doubs.....	11,100	162,006
Indre-et-Loire.....	904,100	1,003,244
Isère.....	404,056	10,021
Jura.....	67,970	247,243
Loire-et-Cher.....	985,799	1,218,403
Haute-Loire.....	57,480	222,004
Loiret.....	587,795	865,217
Nievre.....	174,295	369,090
Puy de Dôme.....	113,559	1,639,665
Haute-Saône.....	30,235	187,865
Saône-et-Loire.....	551,365	843,763
Yonne.....	688,037	984,314

PRODUCTION COMPARED WITH AREA.

The vine covers about 4 per cent of the entire surface of France, only thirteen departments (all northern) producing no wine; the area cultivated, however, has been continually diminishing since 1881, when it reached 2,699,923 hectares, or 6,671,509 acres, and which was reduced to 1,990,586 hectares, or 4,918,738 acres in 1885, a decrease of over 25 per cent.

The average product of wine per hectare in 1885 for the whole of France was 14.30 hectoliters, equal to 153 gallons per acre, the yield of the most important departments being as follows:

Departments—	Hectoliters.	Hectares.	Yield per hectare.
Aude.....	2,096,043	111,619	18.77
Cote d'Or.....	1,102,082	34,398	32.12
Charente-Inférieure.....	695,152	59,217	10.20
Dordogne.....	167,796	61,200	26.28
Gers.....	443,581	131,977	33.61
Gironde.....	1,076,056	139,457	7.90
Haute-Garonne.....	575,968	70,908	8.12
Hérault.....	2,148,130	95,668	22.45
Indre-et-Loire.....	1,003,244	36,304	27.81
Loire-et-Cher.....	1,218,403	40,588	30.00
Puy-de-Dôme.....	1,639,665	32,926	49.52
Yonne.....	984,314	37,831	26.01

It will therefore be seen that the smallest yield was the Gironde (the Bordeaux district), being only about 8 1/4 gallons per acre, while the largest was Puy-de-Dôme 5.40 and the Cote d'Or (Burgundy district) 340 gallons per acre.

Among the numerous causes contributing to this large decrease in the grape crop were the great atmospheric changes that occurred during the spring and most of the summer, and which prevailed generally (even in those departments which show an increase) while the vine was in blossom, as well as during the growth and ripening of the fruit. The vine, after having suffered from frost in the month of April, was sorely tried by the drought of July and August, and finally ruined entirely, in many places, by hail.

The autumn rains, which in the south favored the development of the grape, prevented its ripening in some of the central departments, and in the mountains.

To these general causes the persistent and progressive ravages of the phylloxera and mildew continued the work of destruction in the south and west.

The phylloxera exists in fifty-four of the departments of France, and it is estimated that about 430,000 hectares, equal to 1,062,530 acres, are thus affected.

The planting of American vines continues, and has already been successfully followed in thirty-three departments.

The mildew was very destructive last year, notably in the south, and did an immense amount of damage. Great efforts have been made to find an effectual remedy, and it is believed, with success, in a mixture of sulphate of copper and slaked lime.

DECREASE IN PRODUCTION.

An examination of the tables appended to this report will demonstrate what an immense decline has occurred in the wine-interests of France, each year showing a poorer yield than the preceding one.

In 1875 the product was nearly 84,000,000 hectoliters, or more than 2,000,000,000 gallons of wine, but which has gradually diminished, amounting in 1885 to only about one-third of that quantity. It is expected, however, that the planting of American vines, and the cures for the various diseases that are being discovered, will arrest this decline, and that France may be able to retain the prestige of being the Queen of wine-producing countries, and which she is in imminent danger of losing.

ALGERIAN VINE PRODUCTS.

The culture of the vine continues to progress in Algeria. The crop of 1884 produced 896,000 hectoliters of wine from 50,716 hectares; in 1885 this was increased to 1,018,300 hectoliters from the following provinces:

Countries—	Hectares.	Hectoliters.
Algiers.....	22,337	398,350
Constantine.....	11,755	261,800
Oran.....	23,320	358,080
Total.....	60,412	1,018,300

IMPORTS AND EXPORTS.

In 1875, when the French wine crop was nearly 84,000,000 hectoliters, the imports of wine from foreign countries were but 292,000 hectoliters, but which have been gradually increasing, amounting in 1885 to 8,181,976 hectoliters, 8,030,899 hectoliters thereof being ordinary wine in casks (vin ordinaire) and were imported from the following countries:

Countries—	Hectoliters.
Spain.....	5,696,602
Italy.....	84,811
Other countries.....	1,561,466
Total.....	8,030,899

The customs value whereof was 321,235,956 francs, equal to 39 francs per hectoliter, or about 28 1/4 cents per gallon.

The imports of wine from Italy decreased about 60 per cent. from 1881, they having amounted in that year to 2,146,068 hectoliters against 862,811 in 1885.

The importations of wine from "other countries" were more than double last year over those of the year before. There was also an increase in 1885 in the imports of Spanish wines of 595,592 hectoliters over those of 1881.

Spanish and Italian wines have materially advanced in price in the French markets during the past year; the comparative quotations at the great wine warehouse at Bercey, near Paris, being as follows, per hectoliter:

Description—	January, 1885.	January, 1886.
Spanish wines.....	10 to 55	45 to 65
Italian wines.....	50 to 60	55 to 65

These wines generally contain from 11° to 13° of alcohol, and are mostly used for mixing with light French wines to impart to them additional strength and color.

The total exports of wine from France in 1885 were 2,651,305 hectoliters, of which there were shipped from the Gironde (the Bordeaux district), in wood, 1,058,796 hectoliters, valued at 109,058,988 francs; in bottles, 96,217 hectoliters, valued at 15,394,720 francs; and from all other departments, in wood, 1,277,965 hectoliters, valued at 60,045,600 francs; in bottles, 218,327 hectoliters, valued at 49,123,575 francs.

It will thus be seen that the wines in wood from the Gironde averaged 103 francs per hectoliter, or about 74 francs per gallon, while those from the rest of France were only valued at 47 francs per hectoliter, or about 34 cents per gallon; the wine in bottles, however, reverses this condition, for that from the Gironde averages but 160 francs per hectoliter, against 225 francs from the other departments. This will be easily understood when it is remembered that all the champagnes, and fine wines of Burgundy, are included in the latter figures.

SPECIAL WINE DISTRICT.

The three districts famous for the finest wines in the world, the products of which are purchased and highly valued even in countries having good wines of their own growth, are the Bordeaux, Burgundy, and Champagne. The first named has suffered by far the most from the various plagues that have infected the vines, the product of the department of the Gironde alone having diminished from over 5,000,000 hectoliters in 1875 to a little over 1,000,000 in 1885.

Of the three districts just named, Burgundy is in this consular district, the vineyards producing its finest wines being in the department of the Cote d'Or, and extend from Dijon (a city of about 60,000 inhabitants, and the ancient capital of the Duchy of Burgundy) southward to the neighboring department of Saône-et-Loire, on the east side only of a long and narrow range of hills, like the spinal bone of France, and which is the dividing line of the pluvial waters between the ocean and the Mediterranean. Following that line of hills, and parallel with them, the road of the Paris, Lyons and Mediterranean Railway runs from Dijon to Italy, via Marseilles, and passes by all the most renowned vine-

* I have endeavored to ascertain details of what constitutes "other countries" when imported, but have been unable to obtain the information, as the French customs authorities only publish the name of the principal countries of importation or exportation. There is, however, considerable wine imported from Austria (Hungary, and probably the bulk of that not specified comes from those countries.

yards of Burgundy, among which may be named Sant-naz, Chassagne-Montrachet, Paligny-Montrachet, Volnay Pommard, Beaune, Savigny-Alix-Corten, Veurenot, Nones-Romanee, Nuits, Premaux, Dijon, Georey-Chambertin, Morey, and Chambolle-Musigny.

The fine wines grow about half-way up the eastern sides, and the best of these in every district grow even higher than half-way up, only common wine (*vin ordinaire*) being made from grapes grown in the plain at the foot of the hills and the western slopes. This is important for our American viticulturists to consider, especially in California, where nearly all the grapes are grown in the plains or foot-hills.

In order to illustrate the great value of the fine wines of Burgundy, each year the Civil Hospital of Beaune sells the product of its vineyards by auction, which are so renowned that the occasion is made the object of a great demonstration, purchasers come from long distances; a public dinner follows the auction, at which speeches are made and extensive trial of the produce of the Burgundy grape, and wine interests are largely discussed. The sale for the harvest of 1885 occurred on the 8th of November, and brought an average of 1,492 francs per queue of 456 liters, equal to about \$2.39 per gallon. The highest price paid was \$3 and the lowest \$1.55 per gallon. These figures were a large advance on those of 1884, when the highest obtained was 1,350 francs per queue against 1,870 francs in 1883.

It must be borne in mind that these wines were perfectly new, having just been made, and that none of them will be brought into consumption for at least five years, hence some idea may be had of what can be expected from the careful and experienced cultivation of the vine and care of its product.

The grapes generally grown in Burgundy are the Gamay for the common, and the Pinot for the best wines.

PREPARING BURGUNDY.

I cannot close this portion of my report without alluding to a visit recently made by me to Dijon, as above stated, in the Cote d'Or, and where are located some of the largest dealers in the famous wine of that (the Burgundy) district. I was particularly impressed with the unremitting care and attention they devote to the proper treatment of their fine wines, the location and construction of their cellars, reference being especially had to exposure, openings, ventilation, light and every other detail, it being regarded as of the utmost importance that an even and proper temperature should be preserved; the manner of placing the casks and refilling them, sacking, clearing and handling the wine receives their most scrupulous and constant attention, each quality and age receiving its appropriate and peculiar treatment. As a rule, these fine wines remain in the cask not less than five years. The bottling is done in the same cellar, and in the process of which like attention to the minutest details is had; one of the most important objects being to preserve a uniformity of temperature throughout, so that the wine should neither become chilled or heated in bottling. The same care is bestowed upon the cultivation of the grape, the manufacture of the wine, and its treatment before reaching the cellars of the wine merchant.

The grapes are closely selected, all being of a uniform quality and maturity; bruised or otherwise imperfect ones are rejected,

and, as Burgundy possesses a temperate climate, they are not picked until fully ripe. New casks are only used for wine as soon as made, it being deemed highly injurious to put old wine in any but old packages.

It is the exercise of the great care to all the details of cultivation, manufacture, and treatment, acquired by the experience of ages, combined with the natural favorable conditions, that has made the wines of Burgundy renowned throughout the world, and colossal fortunes for their proprietors.

WINE INTERESTS OF THE UNITED STATES.

The manufacture of wine, although in its infancy in the United States, is making rapid progress. The area of land suitable to the cultivation of the grape is almost incalculable, and it does not require a very great stretch of imagination to foresee that it promises to become one of the most important of our industries, and that the day is not very far distant when the product of our vines will not only be sufficient for home requirements, but that we shall be enabled to contribute very largely towards supplying the rest of the world. Before this most desirable result can be obtained, however, very much has to be learned to successfully develop that great industry, and which knowledge can only be acquired in the old wine-producing countries of Europe. All the conditions of climate, soil, cultivation, quality of the grape, and manufacture and treatment of the wine should be carefully studied and properly applied. This is a matter of such great importance to our country that it should receive the most consideration, and in my opinion persons thoroughly competent in every respect should be commissioned by the proper departments of our national or State governments, to reside in Europe and devote their entire time and attention to obtaining all the desired information, so that it may be disseminated among our people, and thereby promote the speedy development of this wonderful industry.

M. J. NEWMARK,
Consul.

UNITED STATES CONSULATE,
Lyons, France, January 27, 1886.

Maturity of Grapes.

Complete maturity of the grape is indicated by the occurrence of the following signs:

1. The stem of the bunch changes from green to brown.
2. The bunch becomes pendant.
3. The berry has lost its firmness, the skin has become thin and translucent.
4. The berries are easily separated from the stem.
5. The juice of the grape has acquired an agreeable flavor, has become sweet, thick and glutinous.
6. The seeds have become void of glutinous substances.

These are the signs given by several French authors, and are here taken from Prof. Du Breuil, who says, nevertheless, under some circumstances the grapes should be gathered before arriving at the state of maturity indicated by these signs, and under other conditions should be gathered even later.—*Et.*

The Sonoma County Agricultural Association will hold a Fair at Santa Rosa, from August 16th to August 21st. The Directors are exerting themselves to make this the best one ever held there, and considering the great interest taken by the farmers, and the good prospect for crops, it will undoubtedly be a success.

DO INSECTS HYBRIDIZE THE GRAPES?

(T. V. Munson, Denison, Texas, in the Michigan Horticulturist.)

After another season's close watchfulness of the blooming of nearly every species of American grapes, and collecting the notes of others on this question, I am compelled to answer for myself almost entirely in the negative.

To fully understand the subject, the manner of blooming and fecundation in the grape should be understood.

In No. 40, Oct. 5th, 1882, of the *Journal D'Agriculture Pratique*, published in Paris, France, is an article on hybridization in grapes, by that eminent scientist and writer upon grapes, Prof. A. Millardet of the Faculty of Science of Bordeaux, whose correspondence I enjoy, and by whose hand I have the above paper and numerous other of his exact works upon American grapes. This article corresponds so nearly with my own observations that I can do no better than give a liberal translation of that part relating to the above question.

He says in effect, "If one examines attentively the blooming of a grape flower in a favorable time (10 to 12 A. M. of a fair day) at the moment the corolla cap falls off, the stamens are found hugging closely around the pistil, with the anthers a little below the stigma. The anthers are still closed, with rare exceptions, so that no pollen can escape. As soon as the corolla falls, the anthers begin slowly to draw away from the pistils, as though repelled, and in less than five minutes the stamens stand at an angle of about 45 degrees from the pistil, as a hub, and the stamens as spokes of a wheel. At the same time the anthers turn on their points of attachment to the filament in such a way as to still more increase their distance from the stigma to from 1-25th to 1-16th of an inch, as though their pollen grains were offensive to the stigma of the same flower, and at the same time they thus turn away, they begin to discharge their pollen outside of the flower, but as it falls, it may alight upon and fertilize other stigmas in proper condition in the same or other clusters, or be carried on the breeze to other plants. The anthers and stamens continue to shrink from the stigma for some time until they are curved back under the flower in the wild species. During the time (15 to 30 minutes) required for the reflexing of the stamens, very rarely can any pollen grains be found upon the stigma. This, then, clearly favors cross-fertilization, as in the case with the great majority of vegetable species.

"As to agents which transport pollen from flower to flower, or from plant to plant, it is now proper to consider. I have seen in a vineyard of the Herault small black beetles pilfering grape pollen, and in sufficient numbers, perhaps, to be of some importance as transporters, but as they only ate it on the spot, it is doubtful whether they are not more disadvantageous in this than otherwise.

"As the blooming flowers have such a penetrating odor, it becomes a problem whether this does not in some way attract the floating pollen grains to the odorous stigmas.

"The stamens of the male flowers do not spread so much nor curve back but remain erect, so that the wind can the more readily blow away the pollen. The leaves, in a breeze, flap gently against the cluster, thus jarring loose the pollen to be carried till caught upon stigmas or lost.

"I removed the stamens with care from two clusters just blooming, then enclosed one in a paper sack, and left the other in the open air. Nearly all (6-10ths) of the pistils of the sacked cluster fell off infertile, while those of the unsacked cluster set full of fruit. If perfect castration had been accomplished, it is probable all on the sacked cluster would have aborted. It is a most difficult operation to perform upon an entire cluster without scattering pollen, or have pollen floating in the air, fall on some of the stigmas."

He might have well added that for this reason, the most careful hybridizers can never be perfectly certain that some other pollen grains than the ones applied have not fallen upon the stigma, so long as the vine operated upon is in an atmosphere which may contain flying pollen, and hence, so often it is, hybrid, or crosses, supposed to be one thing, turn out to be something else.

I myself this season saw many small black beetles, 1-8th inch long probably, a species of Rove-Beetle (*Staphylinus*.) I think, eating the pollen, but they seemed unable to fly, and evidently crawled up the vine. I also saw one small Sweat-bee upon grape flowers, but never any insects in such numbers, that they could at all carry on the cross-fertilization among grapes, which certainly takes place.

I have two accidental hybrids between Elvira, growing in my vineyard, and the wild Mustang grape (*V. candicans*), which bloom at about the same period, and no vine of the latter stood nearer than about half a mile of any vineyard the season the seeds were borne.

I have three hybrids of different cultivated varieties—one with Lindley, which has reflexed stamen, one with Delaware, with erect stamen, and one with Black Eagle, with the reflexed stamen—with the wild Frost grape (*V. cordifolia*), grown from seeds gathered in my vineyard, and no Frost grape grew nearer than 200 yards of the vineyard. I know all these to be such hybrids by their fruits, and other botanical characteristics, which leave not a shadow of doubt. Many other such examples could I enumerate.

Again, if during the entire blooming season, the weather is excessively rainy or foggy, especially if a variety have reflexed stamens, little or no fruit will set. At such times little odor is perceptible in the vineyard. Those species, such as Riparia and Rupestris, having no fertile flower with erect stamens, as do Concord, Ives, Delaware and nearly all cultivated Labrusca and Vinifera varieties, have far sweeter smell than these latter. Taking all these facts together, it would seem we have good reason to ask the question, *Are not pollen-grains, especially of the grape, drawn by some sort of instinct or attraction, to the stigmas of different flowers or plants than their own?*

In most other plants it is quite certain the fragrance accomplishes the purpose through insects. Also among animals, it is well known what important part odor plays in drawing opposite sexes together. Then why this very powerful grape bloom odor, which attracts insects but little, if at all, yet such wide-spread cross-breeding, unless the fragrance of the stigma draws the pollen-grain of some other flower than its own?

By gently knocking dry opening clusters of male or erect stamened flowers among the blooming clusters of reflexed stamen varieties, I have had them set full crops,

while the same varieties apart, or in rainy weather during blooming time, not so fertilized, have set little fruit. Allow a thin sheet of sun-light through a shutter, into a dark room, and then gently shake a blooming cluster of grapes, with long stamens, above the sheet of light, and immediately there will appear a cloud of pollen dust in the light, thus showing how numerous and easily diffused are the pollen grains. So it would appear that a few profuse blooming male vines set in a vineyard, especially if containing reflexed stamened kinds alone, would be greatly benefited, providing always that your fertilizer blooms at same time with those to be fertilized. This, in some cases, might be just the difference in success and failure.

There is a broad field here for close investigation. What do others say?

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

California had in 1880, over 35,000 acres in vine which had increased by last year to 132,000 acres, of which 50,000 acres were bearing. Three years hence there ought to be 100,000 acres bearing. With them the average is about 400 gallons to the acre. Three years from now, California ought to produce 40,000,000 gallons. At the low price of 25c per gallon, this means a revenue of \$10,000,000. The vineyards in France cover 9,500,000 acres, which in good years average 200 gallons of wine to the acre.—*Anglo-American Times.*

PROHIBITION EGG NOGG.

How Whisky is Smuggled into Rhode Island.

[San Francisco Chronicle.]

Boston, July 27th.—By the overturning of a box of so-called eggs from a truck in Tremont street to-day, the latest method of smuggling whisky into Rhode Island was discovered. The truck contained cases holding 147 dozen eggs on the way from a liquor dealer to Newport. The eggs were common porcelain shells, such as sold for "nest-eggs." Each one contained about enough whisky for a good drink. They were filled through a small hole in the big end, and the hole was closed with a waterproof cemented cloth of the same color as the egg. By chalking the eggs the little deception was complete.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

THE WINE & FRUIT GROWER.

B. F. CLAYTON,
EDITOR AND PUBLISHER.
21 PARK PLACE, NEW YORK.

SUBSCRIPTION TERMS:

(Payable in advance.)	
ONE YEAR (Free of Postage)	\$1 00
SIX MONTHS	50
SINGLE COPIES	10
EUROPEAN COUNTRIES	1 50

Subscriptions and advertisements received at the office of the "Merchant."



ISSUED FORTNIGHTLY ON FRIDAY MORNING BY

E. C. HUGHES & Co., - - Proprietors.

CHARLES R. BUCKLAND, - - Editor.

Office, 511 Sansome street. Postoffice Box, 2346

TERMS PAYABLE IN ADVANCE.

One copy one year \$3.00
One copy six months 1.75

Including city delivery, United States, or Canadian Postage.

Entered at the Postoffice as second class matter

AGENTS.

ANAHEIM.....MAX NEBELUNG
CLOVERDALE, Sonoma Co.....J. A. CARRIE
DIXON, Solano Co.....A. R. STOKES
DUNCAN'S MILLS, Sonoma Co.....C. F. SLOAN
FRESNO.....H. C. WARNER,
Golden Rule Bazaar
GEYSERVILLE, Sonoma Co.....D. LEPTO
HEALINGSBURG, Sonoma Co.....A. BALTZEL
LIVERMORE, Alameda Co.....GEO. BEER
MAXWELL, Colusa Co.....NATHAN
SANTA ANA.....C. F. CHITTON
SAN JOSE, Santa Clara Co.....E. B. LEWIS
SANTA ROSA.....C. A. WRIGHT
STOCKTON.....WM. H. ROBINSON
WINDSOR, Sonoma Co.....LINDSAY & WELCH
WOODLAND, Yolo Co.....E. BERG
HONOLULU.....J. M. OAT, Jr. & Co

FRIDAY.....JULY 30, 1886

Recognition

Our friends in the Fresno Viticultural and Horticultural Association recognize the value of a journal like the MERCHANT guarding and advancing their interests, and give effect to their good wishes in a very practical way, as will be seen by the following resolution:

Official.

FRESNO, CAL., April 5, 1884.

Proprietor S. F. MERCHANT:—Dear Sir: Below is a copy of the minutes of the last meeting of the Fresno Viticultural and Horticultural Society that is of interest to yourself.

Resolved—That this Association recognize the SAN FRANCISCO MERCHANT as one of the best organs of the Viticultural and Horticultural interests in the State, an exponent of their views and able advocate of their interests, and moreover as a paper which has taken more than ordinary interest in the prosperity of Fresno county. We agree to give the publisher our liberal support while that journal pursues the course for which it has hitherto been distinguished.

Moreover, we suggest that manufacturers and dealers in agricultural implements and other merchandises who wish to call our attention to their goods, aid us and other Viticulturists in maintaining the SAN FRANCISCO MERCHANT on a sound footing, by giving it a large share of their advertising patronage.

Be it further resolved that the Fresno Viticultural and Horticultural Society tender its thanks to the SAN FRANCISCO MERCHANT for past favors.

C. F. RIGGS, SECRETARY.

Napa County.

The St. Helena Star has just issued a special Grand Army edition. It comprises no less than thirty-four pages of valuable and accurate and descriptive matter relating to Napa county. It is well printed and well illustrated and must have involved considerable labor in compilation and publication. When we consider that the facilities of inland towns are not generally equal to those of San Francisco in the way of publishing, it must fairly be conceded that the St. Helena Star ranks among the most prominent and energetic papers of California. The edition before us is a credit to any large city and Napa county is to be complimented upon possessing such a literary representative as the Star. We heartily congratulate Mr. W. A. Mackinder, the editor and proprietor, upon the success he has achieved.

The Paul O. Burns Wine Company of San Jose, are pushing sales of wines by a house to house canvass of San Francisco. If more of the wine makers would follow this example, there would be a large increase in consumption and better prices for the makers.

THE GREAT TROUBLE.

The Chronicle, while continuing its assertion that last year's wine crop amounted to 16,000,000 gallons, double what it really was, recommends wine makers not to dispose of this year's wines at too low a figure, but to hold them till such time as the jobbers are compelled to give good value for them. This is good advice, but, like much good advice that is given, it is easier said than done. It is unfortunately the case that many of our wine makers are not in a position to hold their wines till the good times come when the jobbers will have to pay a fair price for wine. And nobody knows this better than the jobbers themselves, who very naturally take advantage of their commanding position. It is an abominable outrage that such a condition of affairs should exist, but we fail to see how the difficulty can well be remedied.

It would suggest itself to any ordinary man of business that the position could be remedied to a certain extent by the banks. An application for an advance on wines should meet with a ready reply in the shape of the assistance desired. But the San Francisco banks have a curious way of doing business. The manipulators of these wealthy institutions decline to advance money on wines. They will do so on grain which is a perishable article, but they will not loan on wine which becomes more valuable in time. It seems as if there were some sort of league between the banks and the jobbers which prevents the wine maker from obtaining anything like a fair show in his business. We are not in a position to state that such is the case, but it is exceedingly strange that, through some means or other, matters should be so managed as to enrich and grant a gigantic monopoly to a few city men, while those who are equally worthy of assistance in the country cannot obtain one iota of it. They can work and labor during the best years of their life having the satisfaction of knowing that the city jobber is the man who reaps the harvest, and who grows fat from the sweat of their brow.

This is very gratifying and consolatory of course—to the city man. But our country friends have the gratification and consolation only of pondering deeply on the subject over their evening pipes and wondering what will be the outcome. To make matters worse there is a keen under-cutting competition among the jobbers. For instance, A inquires the price of wines from one maker and promises an answer in a week or fortnight. In the meantime he visits another maker and gets a price fixed lower than the first. He is then in a position to return to number one and say that so and so will sell the same class of wines for so much less. This generally means a necessary come down on the part of number one, and so the game continues till at last the wine maker is forced to sell for five or ten cents a gallon less than his first offer. One maker is pitted against another. We should very much like to see a general meeting of the wine makers themselves to discuss prices for the coming season, and to endeavor to form so strong a combination that will be able to hold out against the jobbers until a fair market price is given for their wines. It is only right and just that the wine makers should receive a reasonable share of the profits of the wine trade. If such were the case they could afford to pay fairer prices for the grapes and thus all would be benefited. Without

the wine maker the jobber's business is useless, and it is to his interest to assist those who are his mainstay. We do not believe in extortionate prices for wines; neither do we believe in the division of profits in a ratio of five or ten per cent to the wine maker, and two or three hundred per cent to the jobber. There should be a fair division in the great interest involved. But the trouble is a greedy man is seldom satisfied.

WINE SHIPMENTS.

The cessation of low overland freights caused a vast difference in the quantity of wine shipped to Eastern points. With nearly 600,000 gallons exported in April, the showing for May of 133,518 gallons appears very insignificant. It has been the means however of reviving the Panama steamer trade, which did its largest wine business of the year in May, 173,912 gallons, which was slightly more than the whole of the wine shipments by the same route during the first three months of this year. The other sea route shipments still maintain their average of increase, and are nearly four times as large as they were during the same month of last year. The Panama steamers have also increased over their corresponding month of 1885, but the overland business is 150,000 gallons short. The figures for May stand thus:

BY RAIL—MAY 1886.

From—	Gallons.
San Francisco.....	89,453
Los Angeles.....	29,428
Sacramento.....	10,856
San Jose.....	3,816
Stockton.....	325

Total.....133,518
May, 1885.....128,346

Decrease, May, 1886.....149,828

BY SEA—MAY 1886.

Route—	Gallons.	Value.
Panama.....	173,912	\$81,094
Miscellaneous.....	13,633	8,113
Total.....	187,545	\$89,207
May, 1885.....	105,091	65,240

Increase, May, 1886.....82,454 \$33,967

It will be seen that there has been a total loss during May, of 66,374 gallons as compared with the same month of last year. This still leaves, however, an increased business for the first five months of this year of more than a million gallons, and makes the total exports for the period under review in 1886 more than 2,930,000 gallons, which, in conjunction with the largely increasing home consumption, will leave very empty cellars in California at the close of 1886. The outlook for the coming crop should therefore, as far as prices are concerned, be very favorable. The total figures for the five months are thus summarized:

WINE EXPORTS—FIVE MONTHS, 1886.

	By Rail.	Panama Steamers.	Other Sea Routes.
Four Months.....	2,330,499	216,714	64,640
May.....	133,518	173,912	13,633
Total.....	2,464,017	390,626	78,273
5 months 1885.....	1,379,716	475,771	23,445
Total, 5 months, 1886.....			2,932,916
" 5 " 1885.....			1,869,932

Increase, 5 months, 1886.....1,062,984

During the Encampment of the First Regiment at Santa Rosa, Mr. I. De Turk was exceedingly courteous to the visitors by sparing no pains in showing them through his large wine cellar and allowing them to freely sample the results of his various vintages. His kindness was fully appreciated by the military and their lady friends who speak most highly of the attention that was shown to them.

THE AUSTRALIAN MAIL SERVICE.

The New York correspondent of the British Trade Journal states that if Congress grants a subsidy to the Australian Mail Service, it will be at the expense of the English shipping trade. This is just what Congress should do in the interests of American shipping which has for so long been neglected. The only support accorded to this line is by English Colonies which continue to foster the service to a great extent for the mere transportation of their mails, receiving in return but scant treatment at the hands of the American Government while this country derives the greatest benefit from trade associations and passenger travel. We often wonder that the Colonies continue their liberal support toward our shipping and commercial industries while they wait in vain for any turn benefits. It is true that their mails are carried across the country, but this is aid for, and the mails are often subjected to vexations and careless delays. The favor of the Pacific Mail, which was always unsavory at Washington, having been removed from the pure Pacific, it should not be deemed that the new contractors are of the same grasping disposition. It is more than right that the Colonies should be assisted in their American mail service in proportion to the advantages that accrue to us.

And there is every prospect that these advantages will increase. The shortening of the time between New York and San Francisco to five days will enable the English mails to be delivered in the Colonies a day sooner than usual. And for six or eight months in the year this time might be still further shortened by yet another day. It is a fact that for the last three months the mails for Australia and New Zealand have arrived here twenty-six hours before the departure of the steamer which sails according to her contract time table. This unusual early delivery here is due to the fact that quicker steamers are now running on the Atlantic and arrive in New York, during the summer months, on a Saturday afternoon, thus allowing the mails to be forwarded on the same day, reaching here on the following Friday. With the one day's quicker time across the continent they will arrive here on the Thursday and then have to wait two days for the steamer sailing on the Saturday. As this matter of time is of the greatest possible importance, the New Zealand and New South Wales Governments will doubtless see without delay that an alteration is made here in the date of the steamer's departure. With such steamers as the Etruria, now running on the Atlantic, it is reasonable to suppose that the delay of a day, even in the winter months, will be a thing of the past.

Then again considering the home mails, that is the mails arriving here en route for England. The steamers are due in San Francisco on a Monday. They always arrive regularly on Sunday, and, in one instance, have been in port on Saturday. Their mails are forwarded overland generally on Sunday afternoon, reaching New York on the following Saturday evening, but generally too late to catch the fast steamer leaving there on the same day. The consequence is they have to block up the New York Postoffice till the following Tuesday or possibly Wednesday. This difficulty was obviated with the last mails because the Postmaster here telegraphed to the Postmaster at New York

asking him to detain the Saturday steamer there till the mails arrived. It so happened, a chance that may not occur again in a year, that the Etruria and the Baltic were both sailing from New York on the same day and the latter vessel was detained till the Sunday morning. Otherwise the mails would have remained over till the following Wednesday, and then sent by a slow steamer. The fast steamers only leave New York on Saturdays, and this fact should be borne in mind by the Colonial Governments. If the Australian steamers continue to arrive here on Sunday morning, and the five day overland service be performed, then the mails will always be in New York on Friday evening in ample time for the Saturday fast steamer. Any risk of delay could be further obviated by the steamers leaving Sydney on Wednesday and Auckland on Monday, a day earlier from each place than they do at present. The service will probably soon be shortened by three days less than the present contract time, viz: one day between Auckland and San Francisco and two days between here and London, thus making the trip from New Zealand to London in thirty-three days via San Francisco. We hope to see the change effected as it will result in a larger tourist traffic and more general business movement.

Wines in Brazil.

It may cause surprise that grape growing in Brazil has become quite a favorite industry in that empire. Prohibition and excessive consumption of distilled liquors do not hinder the development of the same and the Government wisely fosters it. We learn through an Austrian technical paper that, particularly in the province of Rio Grande and its three Colonies, Dona Isabel, Conte d'Eu and Silveira Martins, viticulture is progressing in an extraordinary way. The crop of that province yielded in 1884 2,811,957 gallons of wine. That of 1885 was considerably larger, but the exact figure has not yet been ascertained. North American viticulture in the future may not only be unable to export wine to Brazil, but may find a rival there in the world's market, if varieties are considered imported in Brazil.

Prohibition Doctrines Abolished.

While Mohammed's prohibition doctrines gain ground in this country, which prides itself upon being the most civilized one, it is quite satisfactory to observe that the way of true progress is opening in a Mohammedan country. Egypt, which before the Moslem rule, had a reputation for the production of the Mareotis wines, now seeks to benefit the inhabitants again by fostering viticulture. Daninos Bey, an intelligent Turkish agriculturist, obtained two years ago permission to plant vineyards on the banks of the lake Mareotis. Other grants have since been made by the Egyptian Government for planting vines in Lower Egypt, allowing six years freedom from taxes for these plantations. Can we learn something from this example?

APPARATUS FOR VINEYARDS.

An exhibition of apparatus and implements for the prevention of the diseases of the vine, and for destroying insects that infest it, has been held at Conegliano, Italy. There were 197 exhibitors and 524 different machines or implements shown, of which 450 were connected with the application of milk of lime, the most effectual remedy for peronospera, the proportion being from 8 to 10 of slaked lime to 100 of water.

TOURIST TRAVEL.

There is no better means of circulating money and increasing business in a country than through the medium of tourist travel. Such advantages are now being realized in California in consequence of the Grand Army celebration. We have several thousands and strangers in our city, each one of whom has come here determined to spend a certain amount of money. They have come here for a few weeks holiday, many of them with their wives and families, and will enjoy themselves thoroughly, traveling through the State, seeing the sights and visiting their friends. At a low estimate of \$500 for each individual visitor this would ensure the circulation of more than half a million dollars in California. This money is evenly distributed among all trades and all classes of the community. The hotels and restaurants receive a large share, but they in turn distribute among grocers, butchers, bakers, fruit vendors, wine dealers and others. The hackmen, let us hope, will give an extra feed to their extra-worked horses, thus causing a greater demand for hay, oats and corn. So the money circulates and we'll all, directly or indirectly, derive benefit from the influx of visitors.

The same is the case with any tourist travel, no matter whence it comes or whither it goes. More might be done to induce such business to California, but it seems to us that there is a certain degree of apathy among those who should take the leadership in any movements that would tend to promote a constant flow of desirable visitors to California. Special attractions could be prepared and arrangements made for quick, inexpensive trips to our many points of interest. But such arrangements would involve joint action on the part of all who would be interested not to avail themselves of the opportunity afforded for extortion and unjust charges. If they would be reasonable and thus secure a good name for honest and fair dealing, then the benefits so derived would be returned a hundred fold. It is not so much the actual passage money and railway fares of which tourists complain. These are made known to them before starting on their journey. But it is the little incidentals that go to make a trip pleasant, the odds and ends that one can buy or see upon the road. If such pleasures can be obtained at a just and reasonable price, then double interest and enjoyment is derived, and the pleasure seeker does not hesitate to report very favorably, wherever he may go, of the place that he has visited and the treatment that he has received.

There is one branch of tourist travel that might be very largely and advantageously increased. We refer to the Australian passenger travel. At the present time, a Colonial exhibition is being held in London. It has attracted hundreds of thousands of European visitors, besides some ten thousand Colonials who have availed themselves of this special attraction to visit the old country. Nine-tenths of these visitors from the Colonies have traveled by the Suez or Cape lines of steamers. It is not because of any preference for those routes, on the contrary, the Colonials prefer traveling through America. They have heard much of the United States and are anxious to see for themselves some of the cities and scenery of which we can justly boast. Their reason for not coming this way is because their expenses would be so much greater. We have known passengers landing from the Australian steamers being awinked by

hackmen to the extent of five dollars for simply driving them to the Palace Hotel. With such a welcome and such a first impression of a place it is not unlikely that they will go their way with an unfavorable opinion impressed upon them. Of course there are some who have more sense, but it must be conceded that there are many incidentals connected with an Australian's trip through America that might be materially improved upon. Australian travelers are very liberal and spend their money freely, but they object to extortion or unjust imposition. The steamers of the Suez and Cape routes to England carry from four to six hundred passengers weekly. If this number could be diverted, monthly even, in our direction we should derive vast benefits therefrom. It is the same with traffic the other way. There are now hundreds of people rushing to New Zealand to witness the sights caused there by the late volcanic disturbances. A portion of this travel should be secured for the American route. We think that the tourist travel with the Colonies could be considerably increased and hope that those directly interested will endeavor to promote a greater passenger movement in our direction. We are all interested and will all be more or less benefited thereby.

ORANGE WINE.

The *British Trade Journal* says: The manufacture of wine from oranges is developing into a very extensive business in Florida, where a magnificent American wine is being made in large quantities from the juice of sweet oranges, surpassing in purity any of the European wines. It is said to be the best tonic, medicinal or otherwise, that can be taken in the human system. It is nourishing, of agreeable flavor and, what is more, a perfect pure native wine. No part of the fruit but the pulp of perfectly ripe oranges is used in the manufacture of the wine, and none of the wine is bottled from the casks until it is at least three years old. In taste it is marvelously palatable, and contains 8.64 per cent of absolute alcohol, and slightly over five per cent of sugar. Wine made from this fruit is stated to have formed a large proportion of the "sherry" of commerce since the troubles caused by the phylloxera in France and other wine producing countries.

Its Good Old Use.

The renowned vat in the cellar of the Castle of Heidelberg, which, since the French cannonaded that splendid old building, has never contained a drop of wine but has been the object of pilgrimage of hundreds of thousands of admiring visitors, may at this season serve to quench the thirst of the guests of the celebration of the quinque centennial of the University of Heidelberg. In February last permission was granted by the Municipality to a citizen of the town to fill the vat for the occasion this Summer with good wine to be consumed at a moderate price. It was not then determined if the whole 3,750 hectoliters, or 99,063 gallons, the vat can hold, were to be put into it or only a part of that quantity.

We are informed that offers of \$25.00 a ton have been made at St. Helena for Zinfandel, Riesling and Mataro grapes. The crop of the two former varieties is reported as being very light in that district.

THE PROHIBITION QUESTION.

We have been favored with three copies of a paper called the *California Voice*, the existence of which was formerly unknown to us. It is a very amusing publication, that is what we have read of it—three articles, by a party named Degelman—which denounce the California wine traffic. The writer quotes poor El Dorado county as the local horrible example and states that four murders were committed there within the last two years through the agency of California wine. The foreign horrible example is Switzerland. The writer has been rather unfortunate in his selections. El Dorado county produces but little wine and we venture to assert that its inhabitants, if there were any, suffer under the influence of something considerably stronger. We have yet to see the man who has ever been "under the influence" from drinking California wine. Maybe the writer has had more experience in resorts that we do not frequent. Maybe also that he is mixing his drinks, so to speak, and confounding the adulterations that are made and sold, with the pure wine. His palate may perchance be out of order and he cannot tell either from which. If he be sincere in his protestations against intemperance, he can best serve his interests by joining hands with us in our good work by recommending the consumption of pure wine, and legislation against the frauds. We will gladly welcome him as a friend to the cause, greet him with outstretched arms, stimulate him to his good work with a few glasses of pure California wine, and reclaim the reclainer.

We were not aware that Switzerland was a very great wine producing country, and, judging by our prohibition friend's reference to the quantities of brandy and Schnappa consumed there, we feel confident that it is not a wine consuming country. Hence his endeavors to attribute "failures, bankruptcies and forced sales of property" to wine consumption can hardly be considered as scoring a point. We rather are inclined to agree with his reference to France in "the facility with which she paid to Germany the enormous war indemnity." But this is not so great a proof that the wine business there is "immensely profitable," and no more harm if it were than that banking or vinegar bitter manufacturing should be "immensely profitable," as it is so much a proof of the thrift and economical habits of the French people and which are caused by their very temperate habits owing entirely to the fact that France is a wine producing country and that its inhabitants are wine consumers. Poor Dr. Jules Guyot too is honored as the "liquor subsidized scientist." Now liquor, according to our Webster, is a strong drink. Wine is not. Dr. Guyot is a pure wine scientist, consequently our prohibition friend is again in the wrong. We are sorry for him, but it is the usual old story of vague vaporings and false and irresponsible utterances. If they only knew how ridiculous they made themselves, and what a laughing stock these prohibition rangers have become there might be some hope for their reformation. But self-content is too firmly embedded in their brain boxes.

Another point raised by friend Degelman is that California wines, as quoted from Professor Hilgard, "range between 11 and 15 per cent of alcohol." There cannot be wine without any percentage of alcohol. Is it not better then to encourage its consumption at this low degree of alcoholic strength, rather than per-

mit the consumption of spirits which are four, five or six times as strong. If our friend will only begin with us in this step, to encourage wine drinking as being less hurtful than whiskey drinking, then he will be moving along in an educated, sensible manner. Let him try this method first for a few years and see the result. By that time he may be able to convince us of the full force of his arguments which are as weak as the water he washes with. He says again, another unfortunate blunder, that "the old toppers and saloon drinkers generally began their drinking career with the use of wine." Now when "the old toppers" began their work at the bottle, there was no wine produced in the State, and it is a well known fact that, in the early days, spirits of the very worst kind were freely imbibed, and to such an extent that the result appears before us in a few "old toppers." Had California then produced wine, there would now be few "old toppers," and there would be less difficulty in establishing the sale of pure wines in saloons at five cents a glass. But we are glad to say that this good work is progressing favorably. The State of Maine is held up as "a monument of the glorious power of Prohibition law." Of course there is no sly grog selling in Maine, and the effect of its prohibition law is to prevent a man from having a drink if he wants to. The mere fact of restraint and compulsion is sufficient to make many men break the law whether they want the liquor or not. Even California wine has been shipped to Maine, and it may be that many an old vinegar bitter bottle comes in handy as a container of stronger liquids.

We think we have wasted too much space over friend Degelman. But we will quote in conclusion a lying, slanderous statement which will be new to our readers. Talking of the wine business he says: "There are in the business in this State men once highly respected, occupying prominent positions in public life, who are to-day lying in their cellars beside their accursed barrels, in an almost constant state of drunken stupor, driving in their speech, their swollen faces a livid red, their bloated bodies scarcely able to reel from barrel to bed and from bed to barrel, utterly lost to all ennobling influences, till suddenly they drop dead on their own doorsteps, a ghastly evidence of the great respectability of the California wine traffic."

This is a pretty pen picture indeed, and as libelous and lying a slander as was ever written by man. We pray to God to forgive him his sins, as we feel pity and contempt for the fool.

HAWAIIAN EXPORTS.

The returns of the Collector-General of Customs at Honolulu make a very favorable showing for the exports from the Hawaiian Islands for the first half of this year. The principal products of the Islands are sugar, rice and bananas, but the exports of the two latter commodities have decreased this year as compared with the first half of 1885. Sugar, on the other hand, shows an increase of nearly 39,000,000, the total exported during the six months being 160,636,998 pounds, a little over 80,000 tons, of the value of \$7,361,024 out of a total value of exports of \$7,605,296. The productions of the Islands were carried to this country almost entirely in American bottoms, which represented eighty per cent of the whole.

THE WINE CROP.

A correspondent sends us the following estimate of this season's grape crop, which, he thinks will be about correct. The gentleman in question has considerable facilities for judging, and we are inclined to think that his figures will be pretty near the mark. They are as follows:

County—	Gallons of Wine
Napa.....	4,000,000
Los Angeles.....	3,000,000
Santa Clara.....	3,000,000
Sonoma.....	3,000,000
Fresno.....	1,500,000
Other Counties.....	2,500,000
Total.....	17,000,000

Complaints are made of dull times in the city wine trade. The reason is not far to seek. People are beginning to learn that they can obtain good drinkable wines for much less than four or five dollars a case, and consequently patronize the fair play establishments. There is no complaint of dull times at any of the cheap wine places in the city, on the contrary they report a steadily increasing demand. At one of the fair priced places here, the average daily receipts, at five cents a glass, are from \$75 to \$100.

The value of American forest trees is shown by the fact that the New Zealand government has sent a large order to San Francisco for seeds of several varieties of our forest trees, which will be utilized in that Colony under the direction of the State Forestry Department of the Government. Among the varieties sent, was a large quantity of red-wood seed, which should prove very suitable to the climate of New Zealand.

The Central and Southern Pacific Railroad Company has issued some very valuable pamphlets concerning the lands of this State. One is a description of the Humboldt Valley, Nevada, and the other contains a complete list of Government and Railroad lands in California that are open to pre-emption, homestead or to purchase.

The exports of wines and liquors to the United States from the Consular district of Lyons, amounted in value to 294,390 francs during the first six months of this year. This was an increase of almost 90,000 francs as compared with the first half of 1885, when their total value was 184,825 francs.

Captain Niebaum's new wine cellar at Rutherford, will probably be the largest and best equipped in California. It is an exceedingly handsome structure, and fitted with the best and most modern appliances. The whole has been arranged and planned by Captain H. E. McIntyre.

Senator Stanford, who has remained in Washington for several weeks, for the sole purpose of assisting in the passage of the Sweet Wine Bill, is compelled to return to California on account of his health.

Mr. H. W. Crabb of Oakville, is improving his wine cellars for the coming vintage, cementing the floors and providing more storage accommodation.

The grape crop at Cordelia is reported to be in excellent condition, and a large yield is anticipated from that district.

It is reported that the grape crop in Anaheim, Los Angeles county, will be a total failure.

A Splendid Yield.

From Mr. George C. Williams, we learn that the crop of the Hawaiian Commercial Company's Plantation at Spreckelsville is now about finished, and the total yield exceeds 14,000 tons, or over 28,000,000 pounds of sugar. During one week, the mills ground 105 tons daily, although the cane ground was hauled by steam t-n and a half miles from the fields to the mills. The whole crop averages over five tons per acre. Parties who rode through the fields last September, and witnessed their fine condition, estimated the probable yield at 11,000 tons of sugar. Mr. Williams deserves great credit for having so successfully managed the largest sugar enterprise in this kingdom, if not in the world, as to surpass the highest estimates of his work.—*Honolulu Gazette.*

We are indebted to the management of the second annual exhibition of the fruit and vine products of Santa Clara county for an invitation to their Fair. The exhibition is to be held at San Jose and with the material at their disposal they should hold a very successful one, and we sincerely hope they will.

Over 10,000 olive trees have been set out this year in the Santa Ynez valley, Santa Barbara county, California.—*Orange Tribune.*

The present prospect of the Sonoma grape crop is that it will be less than that of 1884, and not much in excess of that of last year.

The Tokay grapes at Glen Ellen and Sonoma are badly effected by the heat of last week.—*Cloverdale Reville.*

There were no shipments of raisins by the overland routes during the month of May.

Vines and Wines.

[M. M. Estee in the Napa Register.]

Chief among the industries of this State is grape-growing. Owing to the peculiarity of our soil and climate, the best wine, the best raisins and the best brandy can, and should be, made in California, and the richest, largest and the most abundant table grapes are produced here with rare facility, different localities of the State being especially adapted to the production of each.

I am not unaware that for a time it was the popular idea among a few people, who, from a strange vanity or the pride of opinion which a want of knowledge often gives, or possibly by reason of a three months' European tour, that wine made in California was not good wine, and that we could make none that was good here; and without testing our wines by comparison with others, these people allowed their anti-American prejudices to condemn what was made at home without knowing its real value. But this sentiment is rapidly changing. Yet not as fast as our wine improves.

We are every day improving the character of our wines. Indeed, we have learned at last that good wine cannot be made from bad or inferior grapes. The variety of grapes necessarily is the basis of the character of the wine made, and while soil and climate may do much toward making a good or bad wine, yet, after all, the best soils and the finest climatic influences cannot produce a first-class wine from a second-class grape.

When we commenced making wine in

this State we found the Mission grape about the only one cultivated. This grape did not make a good light wine and we at once commenced introducing other varieties, often making mistakes but always learning something by each error. We obtained the best white wine varieties of grapes first. The result is that California to-day produces some of as good white wine as is made anywhere in the world. True, it is often marketed too green and some of it is not good owing to bad handling and other causes. Yet, as a whole, our white wine is much of it first-class, and nearly all of it fairly good.

No country in the world makes as much good wine, white and red, for the amount of wine actually made, as California, not even France. Why, the most of the wine drunk in France could not be marketed at all here, and so in Italy.

Among the light white wine varieties of grapes which are now most cultivated are the Riesling, the Sauvignon Blanc, the Semillon, the Chasselas and the Burger.

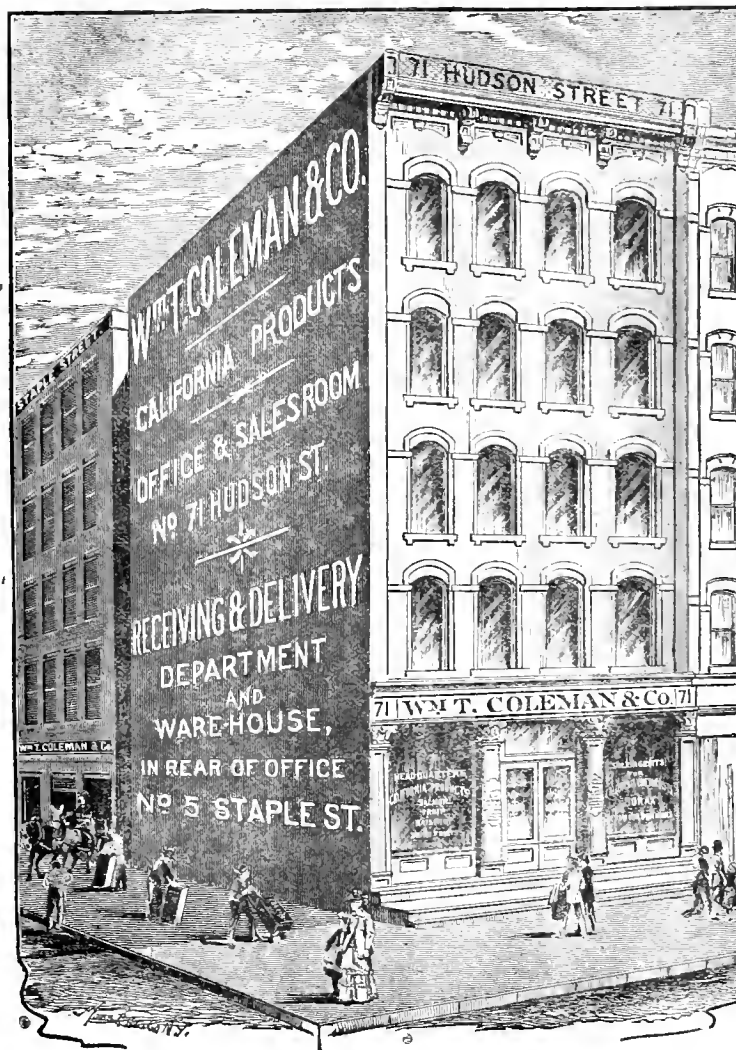
It may be admitted in this connection that until within a few years we have not been so fortunate with our clarets as with our light white wines. And this is due to the fact that we began making claret from the Mission grape. We next tried the Malvoise, which was but a slight improvement over the Mission. The Zinfandel was the next grape adopted. This grape, when grown on hill or dry lands, makes a fair wine and was a great improvement on any grape which had preceded it here. In the more southern portions of the State, however, I doubt if it is much of an improvement over the Mission. But more recently we have obtained from France the finest varieties of claret-producing grapes, and they flourish here well and make a most superb wine. These varieties will soon give a most marked character to our California clarets, and necessarily change the tide of opinion in their favor. These varieties are, the Cabernet Sauvignon, Cabernet Franc, Malb. o. Merlot, Vredalot, Peneaux and Black Burgundy. I do not give all, but only the most conspicuous of those varieties of black grapes which, within the past few years, have been largely introduced into California, and which soon will revolutionize the character of California red wines. Some of these varieties are small bearers. Most of them are not abundant bearers. The result will be that the Zinfandel, the Mataro, the Carrignen and others among the more abundant producers, will always fill a large place in our red wine production, but the character of our wines at home and abroad will be given by the good wines we make, if our wines are good, and they must be good, or we will fail. Indeed, we must make the best wine. Inferior wines will not bear shipment and will not pay for shipment. The future of the wine interests of California depends vastly more on the character of the wine we make than on the markets we seek. Good wine will always find a market, and when we once make first-class wines in quantities it finds a market for all the rest of the wines we make. The best of an article never goes begging to find a purchaser, especially if not hurtful in itself and if it is something to eat or drink. The grape-growers of California have been schooled in adversity, but grape-growing and wine-making will continue to largely increase and, as I believe, will be in a short while a very prosperous business.

CALIFORNIA WINES AND BRANDIES,

San Francisco,
121 Market Street.

Astoria, Oregon,
Flavel's Wharf.

Chicago, Ill.
91 Michigan Avenue.



New York
.71 Hudson Street

London,
4 Bishopsgate St.,
within E. C.

Liverpool,
54 Drury Buildings.

WM. T. COLEMAN & CO.
71 HUDSON STREET NEW YORK CITY.

ALSO AGENTS FOR
ALCOHOL WINE AND SPIRITS.

The Pacific Bank.

With a CAPITAL STOCK of \$1,000,000, all paid up, and a surplus of over \$500,000, with the prudence and experience of the management, are sufficient to warrant for even the serene confidence with which this bank is regarded by business men. The Pacific Bank is just entering on its twenty-fourth year, under those brilliant auspices, offering to the banker, farmer, merchant and others seeking a safe and convenient repository of their funds, a bank with unsurpassed facilities for doing business.

What the Fine Varieties Bring.

We learn that Fowler Bros., proprietors of the "Dos Mesas" Vineyard have sold their entire crop of the finer varieties of grapes to Charles A. W. Moore, at \$50 a ton. The varieties are Cabernet Sauvignon, Cabernet Franc, V. lot and Petit Syrah, the whole making twelve acres. *Livermore Herald.*

Effects of the Heat.

The *St. Helena Star* says: Reports from Glen Ellen state that the grape crop has suffered damage to the extent of 25 per cent from the hot spell, and will not average much above that of last year. Similar reports come from Windsor.

The hot weather is working serious injury to the fruit crop, especially grapes, in the vicinity of Santa Rosa. The young grape vines are becoming burned, and corn especially, on adobe soils, is withered.

Grape growers report that, contrary to expectation, the crop crop, except certain varieties, will not be nearly as large as anticipated in the Napa and Sonoma valleys and most other parts of the State. It will, however, be heavy in the San Joaquin Valley.

CALIFORNIA Concentrated GRAPE MUSTS

FOR THE SEASON OF 1886 I WILL CONCENTRATE must of grapes from the celebrated Natoma Vineyard.

THOS. D. CONE.

Manufacturer of California Concentrated Grape Musts

OFFICE—640 CLAY ST., (Up-stairs),

San Francisco, Cal.

Works at Home-stad, near Sacramento, Cal.

WINE MEN!

TAKE NOTICE:

ST. HELENA, July 8, 1886.

I have on hand at my Cellar at Bello Station, 2 1-2 miles south of St. Helena, 15,000 Gallons of White Wine, the vintage of 1884, Riesling, Chasselas and Burger; also, 35,000 gallons Riesling, Chasselas, Burger and Zinfandel Claret of 1885, which I offer for sale cheap to make room for this year's vintage.

J. H. McCord.

AGENCY OF

WM. T. COLEMAN & CO.

91 MICHIGAN AVENUE, CHICAGO.

California Products a Specialty.

California

Canned

Fruits,

California

Dried

Fruits,

California

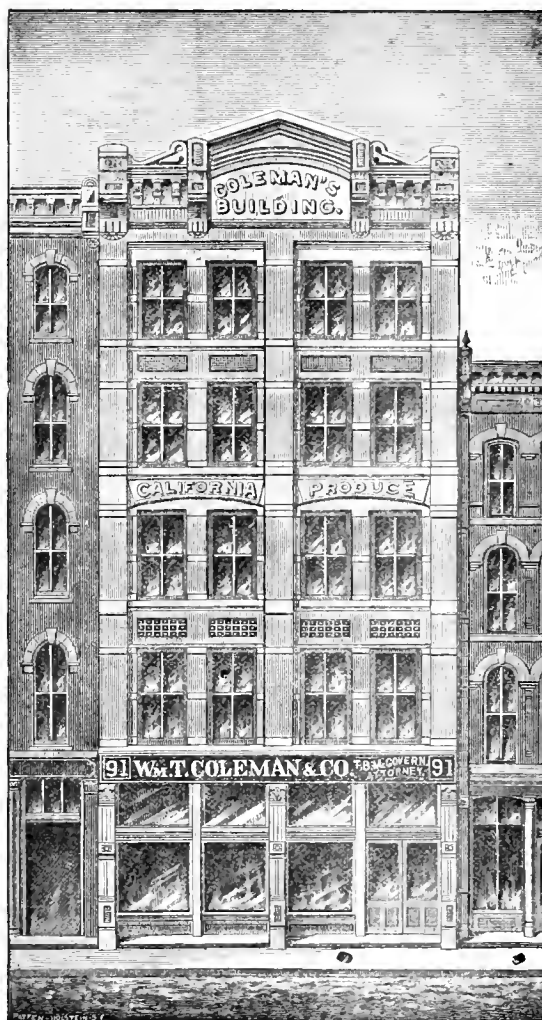
Raisins.

California

Wines,

California

Oranges



COLUMBIA AND SACRAMENTO RIVER SALMON,

—AND ALL—

Pacific Coast Products Suited to Eastern Trade.

CONSIGNMENTS SOLICITED, AND ALL CORRESPONDENCE

PROMPTLY ATTENDED TO.

T. B. McGOVERN, Manager.

THE IDEAL MARKET AND HOME GRAPES.

[J. S. Woodward, Lockport, N. Y., in the Michigan Horticulturist.]

Nothing can be more fallacious and harmful than the spread of the sentiment, so often expressed, that any grape which the people will buy is good enough for the market. Without a doubt grape growing, as a business, has been seriously injured by the introduction of that miserable class of grapes of which the Champion is a type. It should be the study of the grape grower, as it is to his interest, to largely increase the consumption of this fruit, and this he can only do by fostering and cultivating the taste for grapes; and this is certainly not to be done by giving the people at the very beginning of the grape season such vile trash as will so disgust them that they can hardly again, for months, be even induced to look at a grape. It is the most foolish kind of folly to put into the markets a grape so poor that it is not eagerly sought after at home. It should be remembered that the grape-eating public is made up of individual homes, so that a grape that is good enough for home use, is none too good for market. It is settled, therefore, that one of the first, if not the first, requisite in our "ideal grape" is good quality.

Besides quality there are other requisites that are common to the market and home grape, such as health, strong growth, hardness, productiveness, the ability to withstand the attacks of insects, and keeping quality to the extent at least of keeping fresh and plump while hanging on the vine and for a reasonable time after being gathered.

There are often points indispensable in a market grape which, though not so important for home use, are by no means to be despised, namely: a toughness of skin sufficient to ensure good handling, size of berry and cluster, and beauty, which is made up of size, color and brightness, combined with a fine bloom.

That health, hardness and the ability to withstand insects are absolute essentials, is so evident that we need not even consider them. That vigorous growth is so very essential, is not always conceded, from the fact that strong growth is not always a guarantee of productiveness, and yet it is conceded that paying crops can not be secured without a vigorous development of vine and leaf; even the Delaware is productive in proportion to the vigor that can be forced into it by high feeding and close pruning. As strong growth, therefore, is essential to productiveness, and as it almost ensures the ability to withstand insect depredations, it is safe in selecting our model to err, if at all, on the side of heavy foliage and plenty of it.

I have already alluded to the good quality of the fruit as of the utmost importance, and yet there is no question in grape growing on which there is so much diversity of opinion as to which should be given the greater importance, eating quality or productiveness. Of course, quality without fruit, and that in plenty, is worth nothing. On the other hand, tons of fruit, if no better than the wild grape, or the Champion even, are but little better than nothing. So that to a certain extent these qualities are of equal importance. We must have a grape good enough that people will eat it; that the great mass of the people will greatly like it. But we shall find a wide difference in tastes. Some people turn up their noses in extreme disgust at the dis-

tinctive flavor of most American grapes, whether we call it foxiness or muskiness. And they claim that we should educate people to a higher standard by giving them only grapes having none of these flavors. And yet if we carefully watch grape eaters and grape markets, we shall find at least three-fourths of the people prefer grapes of this class, and, if free to choose, always select these. Then why try to change the great majority? If they prefer the musky flavor of the Concord, the foxy flavor of the Worden, or the peculiar flavor of the Niagara, why trouble ourselves to eradicate this taste, or to create another, even though we consider it more elevated. There is nothing about these flavors unhealthy or demoralizing, and if the bulk of the people love and enjoy them, why not let them alone? And doubly so from the fact that the taste for this class of grapes always grows stronger the more people eat of them. If consumers could be found who loved the Champion and would buy and eat it largely, and buy it the second time, I should be in favor of supplying the demand. It is only because of the utterly vile character of its disappointing and disgusting those who try it that I condemn it and its class.

But productiveness must not be ignored. We must have grapes, and grapes in such abundance that prices will be low; ten tons and more will be eaten at four cents, where one ton would be at ten cents. So that a variety, so fruitful that twice the profit can be made in growing and marketing ten tons at the low price to what would be made from another yielding but the one ton at the higher price, must receive our endorsement. The same is true of the home; we want grapes, not on rare occasions and as a luxury, but in such abundance that every member of the family can eat them morning, noon and night. Certainly productiveness is of prime importance.

Keeping quality is of great importance, and this really includes toughness. There are many grapes of good eating quality, and very productive, but the skins of which are so tender that they cannot be gathered even for home use without many being broken. Others crack even before being picked, others again fall from the clusters either before or soon after being gathered. Other things being equal, a grape that would keep nearly or quite all winter would be chosen.

While too much size either of berry or cluster may not be desirable in our ideal grape, we certainly do not wish those too small in either direction, because such do not look well, and the eating of such is only an aggravation. There is a happy mean, and in this feature the Concord is not far from what we would select.

Our eyes are given us to enjoy the beautiful, and no small share of the pleasure of eating is contributed by the inviting appearance of the food, and in selecting what we shall eat we are guided largely by our eyes. So that beauty in our ideal grape should receive much weight. Especially is this true of a market grape. We may not be aware of the fact, but it is true, that "appearance," which is another name for beauty, has more influence in selling a fruit than its quality. People wish their tables to "look well," and they are always attracted in the market by the beautiful fruits, no matter what the variety.

Having thus pointed out the various qualities that should be found in our ideal grape, it is only left to name the variety. And here let me say, that no one variety can be said to combine all the good qualities

to the highest degree; what we must do is to select that one which in marking each, on a scale, would strike the greatest average.

I hope now that it is so widely disseminated and so commonly grown, and that I have no longer any pecuniary interest in its dissemination that I shall not be misunderstood when I say that the Niagara comes the nearest to the ideal at the present time.

If we go through the list of grapes and mark each with its proper value on each of the desirable points I have named, the Niagara will show by far the largest score. While it may not be as rampant a grower as the Champion, or as good in quality as the Duchesse or the Delaware, or as hardy as the Clinton, or as good a keeper as the Diana or Catawba, in the general average it far exceeds any, and in productiveness and handling and shipping qualities it is the par of all, and what can be more beautiful than a basket of Niagaras fully ripe and properly prepared for the market. Surely its production was a boon to the fruit-loving public, and the name of its originator should be long remembered and honored as one who was a benefactor to his race.

E. L. G. STEELE & CO.,

Successors to

C. ADOLPHE LOW & CO.,
COMMISSION MERCHANTS.

Agents American Sugar Refinery and Washington Salmon Cannery.

HERRMANN & CO.,
HOP MERCHANTS.

Importers and Dealers in

CORNS, BREWERS' AND BOTTLERS SUPPLIES,
SODA WATER AND WINE DEALERS' MATERIALS.

ALEX. FRIES' & BROS. COGNAC OILS,
ESSENCES AND FLAVORS.

331 SACRAMENTO ST. San Francisco.

NOW READY.**THE**
REPORT

OF THE

FOURTH ANNUAL
STATE**VITICULTURAL**
CONVENTION.

PRICE, ONE DOLLAR.

OFFICE OF THE SAN FRANCISCO MERCHANT.

E. C. HUGHES & CO.,

Publishers,

511 Sansome Street,

THE CUPERTINO VITICULTURAL SOCIETY

Meets on the evening of the third Thursday of each month at Mr. Montgomery's.

J. C. MERTHEW, President
J. D. WILLIAMS, Vice-President
R. C. STILLER, Secretary
Please address all communications to R. C. STILLER,
Galsville, Santa Clara Co., Cal.

CALIFORNIA VINEYARDS.

KRUG CHARLES,
Krug Station, St. Helena, Napa Co., Cal.
Producer of fine Wines and Brandy.

J. C. WEINBERGER, Manufacturer of Wines, near St. Helena.

H. W. CRABR, Wine Cellar and Distillery, Oakville, Napa County.

SAN FRANCISCO WINERY, RUEFF & REH-
fusss Proprietors, 116 1/2 Eighth St., S. F., Cal.

MOUNTAIN WINE
From the Celebrated**YERBA BUENA VINEYARD.**

Situated 7 miles East of San Jose. One thousand feet above the Valley. In cases or bulk fine old Burgundy and Mountain Riesling.

PAULO BERNIS WINE CO. Proprietors.
Branch Cellars in San Jose, Cal.
Wm. T. COLEMAN & CO., SAN FRANCISCO,
Sole Agents for Chicago and New York

BOSTON BELTING CO.

GOOD HOSE A SPECIALTY.

J. W. CIRVIN & CO.,

24 CALIFORNIA STREET, S. F.

ESTABLISHED IN 1860.

ALL WINE MAKERS

Should drink the

PURE BELMONT

— HAND-MADE —

SOUR MASH WHISKY.

Supplied in lots to suit by

JAMES CIBB, 617 Merchant St.

THE RISDON**IRON AND LOCOMOTIVE WORKS.**

Cor. Beale & Howard Sts., S. F.

W. H. TAYLOR, Pres't. JOSEPH MOORE, Sup't.

BUILDERS OF STEAM MACHINERY

IN ALL ITS BRANCHES.

Steamboat, Steamship, Land Engines
and BOILERS, High Pressure or Compound.

STEAM VESSELS of all kinds built complete, with Hulls of Wood, Iron or Composite.
STEAM BOILERS. Particular attention given to the quality of the material and workmanship, and none but first-class work produced.
SUGAR MILLS AND SUGAR-MAKING MACHINERY made after the most approved plans. Also, all Boiler Iron Work connected therewith.
PUMPS. Direct Acting Pumps, for Irrigation or City Water Works purposes, built with the celebrated Darr Valve Motion, superior to any other Pump.

Graham Paper Co.

OF ST. LOUIS.

W. G. Richardson,

PACIFIC COAST MANAGER,

No. 529 Commercial St.,

SAN FRANCISCO, - - - CALIFORNIA

TELEPHONE No. 1064.

OUR NATIVE WINE SHIPMENTS BY SEA.

PER P. M. S. S. CO'S STEAMER SAN JOSE, JULY 15, 1886.

TO NEW YORK.

MARKS.	SHIPPERS.	PACKAGES AND CONTENTS.	GALLONS.	VALUE.
S, in diamond, Philadelphia	J. Gundlach & Co.	6 barrels Wine	844	\$501
J. C. New York	John T. Wright	5 quarter casks Wine	10	12
G. S. W. New York		1 keg Wine	10	12
R, in triangle, New York	Walter, Schilling & Co.	12 puncheons Wine	1914	957
O. L. & Co.	Williams, Diamond & Co.	77 barrels Wine	3705	1853
P. R., Syracuse	Walter, Schilling & Co.	8 barrels Wine	203	246
Total amount of Wine			7,977	\$4,378

TO CENTRAL AMERICA.

J. P. & Co., Corinto	Wellman, Peck & Co.	10 cases Angola	50	\$16
		10 cases Port	50	47
G. & J., Anapala	Enzone de Saba & Co.	3 cases Claret	15	13
L. V., Anapala	John T. Wright	1 keg Wine	10	35
J. D., Punta Arenas	Urribe & Urribe	5 kegs Wine	55	64
		3 kegs Wine	60	45
Total amount of Wine			270	\$250

TO MEXICO.

A. P. & Co., Acapulco	R. Dreyfus & Co.	2 cases Wine	233	\$155
		2 half barrels Wine	40	75
Vega, Colima	Samuel Bishop	6 kegs Wine	120	80
S. Manzanillo	J. H. Duckmann	1 half cask Claret	75	38
T. L. & Co., S. Cruz	Wellman, Peck & Co.	2 barrels Claret	102	120
L. S., San Buen	Enzone de Saba & Co.	6 cases Wine	60	57
G. & S., Colima	F. Sander	100 cases Wine	504	709
Total amount of Wine			1,240	\$1,225

TO PANAMA.

B, in diamond, Panama	J. Gundlach & Co.	3 casks Wine	302	\$135
		2 cases Wine	10	8
		1 keg Wine	5	4
Total amount of Wine			317	\$147

TO GERMANY.

E. Duesberg	Walter, Schilling & Co.	2 barrels Wine	68	\$68
Numb. 12		2 cases Wine	10	8
Total amount of Wine			78	\$76

MISCELLANEOUS SHIPMENTS.

DESTINATION.	VESSEL.	RIG.	GALLONS.	VALUE.
Victoria	Queen of the Pacific	Steamer	102	\$66
Honolulu	Australia	Steamer	1,423	1,327
Total			1,525	\$1,393

TO NEW YORK—PER SHIP STERLING, JULY 19.

J. B. R.	T. B. Randol	12 cases Wine	60	\$24
W. T. & Co.	Win. T. Coleman & Co.	101 barrels Brandy	5,027	5,529
F. H. M.	M. Gray	1 cask Wine	60	24
P, in diamond	W. Schmitt	100 barrels Wine	4,900	1,960
		50 barrels Brandy	2,200	2,420
R. S. H.	Freeman, Smith & Co.	1 cask Wine	60	21
S, in diamond	Field & Stone	1 barrel Wine	110	44
E, in diamond		1 barrel Wine	110	44
A, in diamond	J. F. Chapman	2 kegs Wine	20	8
L. V. M.	Geo. F. Hooper	3 packages Wine	118	47
Total amount of Wine			5,328	\$2,131
Total amount of Brandy			7,227	7,949

MISCELLANEOUS SHIPMENTS.

DESTINATION.	VESSEL.	RIG.	GALLONS.	VALUE.
Victoria	Mexico	Steamer	84	\$87
Honolulu	Calbarin	Bar	40	25
Santa Rosalia	Le Kovigan	Steamer	123	108
Total			256	\$220

Total shipments by Panama steamers	8,982 gallons	\$6,076
Total shipments by other sea routes	7,101 "	3,714
Grand totals	16,083	\$9,790

J. N. KNOWLES, MANAGER

EDWIN L. GRIFFITH, SR. CLERK

ARCTIC OIL WORKS.

MANUFACTURERS OF

Sperm Whale, Elephant and Fish Oils, Skid Grease.

WHALE OIL SOAP.

ESPECIALLY ADAPTED FOR VINEYARDS AND FRUIT ORCHARDS.

OFFICE—28 CALIFORNIA STREET, S. F., CAL.

SUGAR AS A FOOD FOR STOCK.

(By Sir J. B. Lawes.)

The very low price of sugar at the present moment has naturally attracted the attention of agriculturists, and such being the case, it is desirable that its feeding properties should be more generally known.

It is now exactly thirty years since I read a paper before the British Association for the Advancement of Science on the equivalence of starch and sugar in food. At the period to which I am alluding there was a considerable duty upon sugar, and one object of the experiments was to ascertain whether its feeding properties were sufficiently great to justify the farmer in making large use of the duty free sugar.

A farmer who feeds stock for profit should exercise a considerable amount of judgment, as well as caution in the selection of their food. He should bear in mind that all processes of manufacture increase the cost of a food. Look, for example, at the extraordinary amount of mechanical and chemical skill which has been brought to bear upon the grain of wheat in order to produce a loaf of bread. A little coarse grinding, or even a few hours' soaking in water, is all that is necessary to adapt the wheat to the requirements of the animal stomach. It is true that we purchase the bran and pollard for our stock, but it is as waste products; we do not pay the cost of their manufacture, and if there was no sale for these products they would have to be thrown away. In a similar way—as I pointed out many years ago—linseed, cotton and rape cakes are waste products; they would be manufactured just the same whether farmers purchased them or not, and the price at which they are sold is neither more nor less than what the competition between farmer and farmer enables the maker to obtain.

Linseed must be a cheaper food for the stock than the oil and the cake manufactured out of linseed, assuming they were used together as a food; and unless the maker could find a sale for his oil for other purposes than as food for stock, his business would come to an end. In all questions, therefore, relating to the economy of food, it is most important to distinguish between a food which is the residue of some manufacturing process, and one which is manufactured as a food only. The process of manufacture, while it adds to the cost of material, does not necessarily add to its feeding properties.

If sugar and sugar beet were both foods which could be purchased in the market, there could be very little doubt regarding the greater economy of the beet as a food for stock, for a certain amount of loss in the sugar takes place in the process of manufacture, and the cost of the manufacture must also be paid.

With the exception of locust beans, there is no cattle food in the market which contains any large proportion of sugar, while almost the whole of the substances with which sugar, as a food, must come into competition, contain large quantities of starch, and, in consequence, the inquiry referred to was directed almost exclusively to the relative value of sugar as a food compared with starch.

Here I may mention that however valuable both starch and sugar may be as foods, neither one nor the other could sustain life if used alone. It is necessary, therefore, in the case of experiments carried out for the purpose of testing their food value, to use some substance which supplies the in-

redients in which the starch and sugar are deficient. Lentils and bran, in relation to the starch which they contain, are very rich in the nitrogenous element of food; these two substances were therefore selected for use in some experiments I made in fattening pigs with starch and sugar. I selected pigs, as more suitable animals than oxen or sheep, from the fact of their having a wonderful power of increase, if furnished with plenty of good food. When fed with barley meal—which I might call the natural diet of civilized pigs—they will increase in weight by about 1 lb. to each 4 lbs. or 5 lbs. of meal.

In that experiment, the foods supplied were lentils, bran, starch and sugar, and where the pigs could select from the four foods what they liked the best, they took very little starch or bran, and almost confined themselves to lentils and sugar. This diet, though it pleased their palates, could produce but little more increase upon their weight than the starch, and what little there was is clearly due, not to the selection of sugar rather than starch, but to the rejection of the bran. Starch and sugar, therefore, as food, appear to be equivalent; or, in other words, a pound of one, properly used, can produce no more increase in our stock than a pound of the other.

It will be found that sugar does not possess the high feeding value which is sometimes attributed to it. The greater portion of the dry substance of mangels consists of sugar. At the Liverpool quotation the sugar alone in mangels would make their feeding value 17s. per ton, which is a far higher estimate than most farmers would like to place upon them. Swedes are generally considered quite as good a food as mangels, if not better, weight for weight; and yet swedes contain less sugar than mangels, and their consuming value is rarely estimated at more than 7s. or 8s. per ton. Sugar beet contains about 12 per cent of sugar, which, at 11s. per cwt., would make the sugar in a ton of beet worth 27s., and yet some farmers in Suffolk were willing to sell their beet to the Lavenham sugar factory at 21s. per ton; and this, though the beet roots—in addition to the sugar—contained other valuable substances, such as nitrogen, potash and phosphates.

Granted, then, a somewhat exaggerated value has been placed on sugar as a food for stock, still there is no doubt that it is an excellent food; the only question therefore is this: At what price should a farmer buy sugar as compared with other foods in the market?

Although we may not know what is the most healthy balance of the various constituents of food to be given to our stock in their various stages of growth and fattening, still there are certain limits beyond which we may feel sure that food will be wasted. I think we may safely conclude that sugar should not be used in any quantity with the cereal grains, or with maize, rice, roots, or even with meadow hay. All these substances are somewhat low in nitrogen, and to dilute the nitrogen that exists still more by the use of sugar would tend to waste it. On the other hand, the leguminous seeds, especially lentils, tares, and beans, and such food as linseed cake, cotton cake and clover hay, contain a relatively large amount of nitrogenous substance, which might be safely diluted with sugar.

There is another point in regard to the use of sugar which is somewhat important. I refer to the attractive character of the substance amongst all those who work on the farm. To ensure the animals their full medium, it would require the eye of the master to be very close to his stock when their food was given to them. In the case of animals which are off their feed, or to induce animals to eat their food which they would otherwise reject, sugar may probably be useful, but in such cases every one must use his own judgment. As a food for healthy stock, even at its present low price, sugar does not appear to be an economical substance to use, when brought into comparison with other foods which are available to the farmer.

Pruning of Grapes.

(N. E. Smith, Ionia, before Michigan Horticultural Society.)

As my vineyard is composed mostly of Concord, I will confine myself to this variety; and first let me give my opinion that this is the best grape that I am acquainted with, for extensive cultivation in the interior of Michigan.

It is the old reliable. Plant wide apart say sixteen feet. Use arms as frame-work, then fill the trellis with last year's growth, which I nail to the bars, instead of tying; fill all open spaces that may be found, as the vine is very pliable.

I place them right and left, up and down, as the case may require, to fill any vacancy.

Each year I cut out all the old wood I can, and spread the vines to check too rank growth, which tends to lessen the quantity of fruit, and produces poorer wood for next year's fruits.

Begin to thin and tie up in June, take out all non-bearing shoots, and where too thick to ripen well, taking off bearing canes.

If we allow too many young canes to grow, they will surely prevent early and satisfactory ripening. The rank, leading shoots must be pinched off to throw the sap into the weaker growth. This is the most effective means of bringing them forward. It takes experience to judge just how many to have, and how many it is best to remove.

My vineyard has been bearing eighteen years, and I have never failed of a fair crop, say, two or three tons to the acre.

But with this system of spreading the vines, I find one defect; too many shoots start out from the old wood, that are worthless. I find that they increase as the vines become older notwithstanding. I get new wood enough to get a good crop of luscious fruits each year. Perhaps the time may come when I shall think best to cut back to the stump, or plant new vines. This vineyard has not been matured in ten years.

Plow first in the spring, then cultivate thoroughly through the summer.

For ten years I have been troubled to some extent with a black slug, the same which attacks pear and cherry trees. It eats the leaves and destroys the fruits. What shall be done to check them?

I would say further that I tried tying to stakes, but soon abandoned it. I also tried the fan system, but did not like that. The Concord must be spread in this climate, most emphatically. It must have room in order to grow good fruit that will ripen early and sell well.

This year, June 1st, Moore's early and Hartford were in blossom; June 9th, Concord, Delaware and several other varieties were in bloom. Last year, Concord did not bloom till July 3d. It is early yet to predict the harvest, but the promises are unusually favorable.

MECHANICS' INSTITUTE FAIR. TWENTY-FIRST EXPOSITION!

Opens August 24th. Closes September 25th, in their immense Pavilion
ON LARKIN STREET.

With a G and Display of Natural and Manufactured Products of the Pacific Coast, including a magnificent collection of Oil and Water Color Paintings, Art Work Photography, Machinery in operation, a Special Floral Exhibit each week, the finest display of Fruits, Grains and Vegetable ever before presented to the people, and a Grand Instrumental Concert, day and evening.

Prices of Admission:

Double Season Ticket \$5.00
Single Season Ticket 3.00
Adult's Single Admission 50c
Child's Single Admission 25c

Members of the Institute entitled to Season Tickets at half rates.

Full information given or sent on application to the Assistant Secretary, 31 Post street.

W. P. STOUT, Sec'y. P. B. CORNWALL, Pres't.
J. H. GILMORE, Supt. J. H. CULVER, Asst. Sec'y.

T. & M. E. Tobin & Co.,

PRODUCERS OF PURE

CALIFORNIA WINES & BRANDIES,

Cor. Stockton & O'Farrell Sts.,

San Francisco, Cal.

BUY THE

HOWE SCALE.

D. N. & C. A. HAWLEY,

AGENTS, San Francisco.

ARE YOU USING
WELLINGTON'S

IMPROVED EGG FOOD

For Poultry?

IF NOT, WHY NOT?

EVERY GROCER, DRUGGIST AND MERCHANT
SELLS THIS EGG FOOD.FRAZER AXLE
BEST IN THE WORLD GREASEIts wonderful qualities are unsurpassed, actually outlasting a box of any other brand. Free from Animal Oils. GET THE GENUINE.
FOR SALE BY
CALIFORNIA MERCHANTS
and Dealers generally.A. 1876 S. I. XII.
I. S. 1888 G.
The Industrious never SitsCROSSE & CARDNER,
BROKERS IN REAL ESTATE.

Ranches, Residence, Business and Manufacturing Property Bought and Sold on Commission. And Publishers of "Sonoma County Land Register and Santa Rosa Business Directory."

OFFICE, No. 312 B St., SANTA ROSA, CAL.

FOR SALE CHEAP.

A new 300 gallon STEAM STILL with all improvements; also a

GAR & SCOTT
25 HORSE POWER

Agricultural Engine.

But little used and warranted in good condition. Apply to

SANDERS & CO.,

121 Mission Street, San Francisco

I. LANDSBERGER, HENRY M. LANDSBERGER

Landsberger & Son,

Commission

Merchants,

123 CALIFORNIA STREET;

SAN FRANCISCO.

Agents for the Purchase and Sale of Viticultural Products and Vintners Supplies.

To Wine and Brandy
Makers.

Wanted a party who thoroughly understands making and handling wines and brandies and can furnish from \$1.00 to \$2,000 to purchase for himself the neighbor's grapes at from \$10 to \$15 per ton, to own the undersigned who controls a large granite cellar fully stocked with cooperage and utensils, located in Placer County, California. The applicant would be required to make the wines and brandies from the grapes grown on the ranch of the owners for the privilege of making up the grapes of his own purchase and use of cooperage, utensils, etc. To the right kind of a man a chance is here offered to engage in a permanent money making business with a small outlay of capital. Address immediately,

Thad S. Fitch,
LINCOLN, Placer County, Cal.

E.C. HUGHES PRINTER

511 Sansome St., S. F.

W. L. CHAMBERLAIN, JR. L. A. J. JENSON

PACIFIC
Business College,
320 POST ST.
SAN FRANCISCO.

Life Scholarships, \$75.

DAY AND EVENING SESSIONS.

Ladies Admitted into all Departments.

No Vacations. Send for Circular.

CHOICE
OLD WHISKIES

PURE AND UNADULTERATED.

We Offer for sale on Favorable Terms to the Trade,

CATHERWOOD'S

Celebrated Fine Old Whiskies,

OF THE FOLLOWING BRANDS, NAMELY

"CRANSTON CABINET"
"A.A.A." "CENTURY"
"OLD STOCK"
"HENRY LULL"
"DOUBLE B"
"MONOGRAM"VERY OLD AND CHOICE, IN CASES OF ONE
DOZEN QUART BOTTLES EACH,"BRUNSWICK CLUB" Pure Old Rye,
And "UPPER TEN."

For Excellence, Purity and Evenness of Quality the above are unsurpassed by any Whiskies imported. The only objection ever made to them by the manufacturing dealer being that they cannot be improved upon.

Dickson, De Wolf & Co.

SOLE AGENTS,

SAN FRANCISCO, CAL.

Challenge Wine Pump.

WITH BRASS LINED CYLINDER, OR ALL BRASS PUMP



The annexed cut represents our Horizontal Challenge Wine Pump of great compactness and power, for use in cellars for pumping from one tank into another. The Cylinder of our pump is brass lined, the Piston, Valve and Valve Seats are brass. Our all brass pumps are made entirely of brass with exception of the Lever. Very suitable for power wine pump.

Wine Tanks.

WATER TANKS.

We manufacture our tanks of iron, lined with Lead or Lumber, well seasoned, free from leaks, with a double bottom in height and guarantee them to be well made in every respect. Write for special prices and terms. Send for our special catalogue of Wine Hoses, Garden Hoses, Wine Cords, etc. Made free upon application.

WOODIN & LITTLE,

509 and 511 Market Street, San Francisco.

GOODYEAR'S
"COLD SEAL"

Rubber Hose

For Sale by All Dealers.



GOODYEAR RUBBER CO.

R. H. PLANT, S. M. RAYSON, AGENTS.
577 and 579 Market St., SAN FRANCISCO.

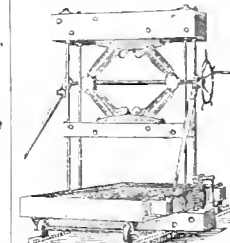
WORTH'S IMPROVED

PATENT

COMBINED TOGGLE LEVER

—AND—

SCREW PRESS.



Doesn't call the attention of wine and other makers to my Improved Press. With this Press the movement of the lower is fast at the commencement, moving one and a half inches with one turn of the screw. The last turn of the screw moves the lower one-sixteenth of an inch. The following has an up and down movement of 20 1/2 inches, with the double platform, run on a railroad track. You can have two curbs, by which you can fill one while the other is under the press, thereby doing double the amount of work of any other press in the market. Model on exhibition at the office of the Board of State Viticultural Commissioners. Also manufacture Horse Powers for all purposes, Ensilage Cutters, Pump Filters, Worth's System of Heating Dairies by hot water circulation. Send for circular.

W. H. WORTH,

Petaluma Foundry and Machine Works,
Petaluma, Sonoma Co., Cal.

Testimonials from I. DeTurk, Santa Rosa; J. B. J. Portal, San Jose; E. T. Chapman, Glen Ellen; Kate F. Wardfield, Glen Ellen; J. H. Brownell, Glen Ellen; Joseph Walker, Windsor; John Linkhorn, Windsor; Wm. Pfeiffer, Guerneville; J. & F. Muller, Windsor; R. C. Siler, Guerneville; Lay Clark & Co., Santa Rosa; Vasey, Fries, Old San Bernardino; J. P. Frank, William Allen, San Gabriel; James Emmons, B. & J. A. Gilson, Healdsburg; W. W. Carter, Ukiah; Philip, Santa Rosa; L. Lavigne, Watson Glen, Elen, Geo. West, Stockton, can be had by applying for printed circulars.



A Prominent Viticulturist.

The *Australian Times and Anglo New Zealander* says: Mr. James T. Fallon, proprietor of the Murray Valley Vineyard at Albany, died on May 26th in Sydney. Mr. Fallon was for many years one of the leading residents of the Albany district. He represented the district for some years in the Legislative Assembly of South Wales.

He was, however, best known as an able and energetic promoter of the wine-growing industry. He was the first to show that what he considered to be good champagne could be made in the colony, having imported a French expert under a long engagement to superintend the manufacture. He also made two visits to England, with a view to bringing Australian wines prominently under the notice of the British public, and to induce the Chancellor of the Exchequer to modify the tariff under which the wines of Australia have been practically excluded from the English market. For this purpose he pointed out in an able address that the high spirit strength of colonial wine was due to natural causes, and not to the adventitious introduction of alcohol. This statement was denied by Dr. Thudichum, an expert of some standing, who maintained that it was impossible for any natural wine to contain so much alcohol. Mr. Fallon, on his return to Australia, took steps to refute Dr. Thudichum. At his instance Mr. L. A. Moody and Mr. Lumsdaine, chief inspectors of distilleries for Victoria and New South Wales, visited the

Albury vineyards, gathered some grapes which were pressed and distilled in their presence, the result amply justifying Mr. Fallon's contention. In many other ways Mr. Fallon has done service to the wine-growers of Australia.

Fruit a Medicine.

The *Journal of Health* says: Fresh, ripe, perfect raw fruit is safe and healthful at all seasons of the year, and amid the ravages of disease, whether epidemic, endemic or sporadic, general, special or local. Under proper restrictions as to quantity, such fruits as named will cure a diarrhoea, aid in removing a cold, colic, fever or any other disease whose treatment requires the bowels to be kept freely open; for this effect fresh ripe fruit is acknowledged to have; but to be used advantageously in health and disease, the following rules are imperative:

1. Fruit should be eaten ripe, raw, fresh and perfect.
2. It should be eaten in moderation.
3. It should be eaten no later than four o'clock in the afternoon.
4. No water or fluid of any description should be swallowed within an hour after eating fruit.
5. To have its full beneficial effect, nothing else should be eaten at the time fruit is taken.

It is to the neglect of these observances that erroneous impressions prevail in many families, and to an extent, too, in some instances, that the most luscious peach, or apple, or bunch of grapes is regarded as that much embodied cholera and death.

Grapes for the East.

The benefits of competition by the advent of the California Southern into Los Angeles, it seems, are not to be confined to oranges alone, but both lines are reaching after other green fruit as well. Cuts have reached a point where the California Southern line now offers on grapes, etc., a rate of \$300 per car for ten cars in special fast freight train in four days to the Missouri river, and \$450 per car in regular passenger trains. The same rates apply from all stations on the San Gabriel Valley Railroad by special arrangements, we are authorized to announce. These figures are a large reduction from the former regular tariff, and should encourage to a large extent the further experimenting in shipments of our delicious table grapes. With the fast time, low rates and careful attention to cars en route now assured by the competing overland lines, there is every reason to believe that success and profit will attend the ventures. The large vineyardists can readily make up carloads, and small growers should combine giving careful attention to the best methods of packing, ventilation, etc.—*Los Angeles Herald*.

On the the vineyard of Mrs. Chas. Krug, Mr. Krug has made an experiment of general interest this season, using wires to advantage in training up the vines. He has used it on several rows, the old cane being tied to the wires. Mr. Krug believes that several additional tons to the acre will be secured by this process.—*St. Helena Times*.

R.H.McDonald.
—PRESIDENT—
R.H.McDonald Jr.
VICE-PRES.
PACIFIC BANK
Oldest Chartered
Commercial Bank
on the Pacific Coast.
Capital \$1,000,000.00.
Surplus \$500,000.00.
San Francisco, Cal.
July 1st, 1886.

We respectfully invite attention to the statement herewith presented, and beg to say we are pleased with our achievements during the first half of the present year.

It is gratifying to us, also, to state that the results attained are satisfactory to our stockholders. We hope our success will receive the favorable regard of our patrons and friends whose business relations have conducted to enable us to make so commendable an exhibit as the following:

ASSETS:	
Bank Premises,	\$150,000 00
Other Real Estate,	85,556 27
Land Association, Gas and	31,304 65
Bank Stocks,	2,378,383 15
Loans and Discounts,	339,502 11
Due from Banks,	481,505 78
Money on Hand,	63,416,551 98
LIABILITIES:	
Capital, paid up,	\$1,000,000 00
Surplus Fund,	500,000 00
Undivided Profits,	23,318 71
Due Depositors,	1,741,973 85
Due Banks,	151,259 90
	3,416,551 98

While returning thanks to our friends for the very liberal patronage during the past, a continuance of their favors is respectfully requested. The regular semi-annual dividend has been declared and a balance of accumulation placed to account of undivided profits.

R. H. McDONALD, President.

SULPHUR! SULPHUR! SULPHUR!

FOR SALE IN

QUANTITIES TO SUIT.

WM. CLUFF & CO.,

WHOLESALE GROCERS,

16, 18, 20 and 22 Front St., Cor. Pine, S. F.

JOHN A. ROEBLING'S SONS CO.
WIRE ROPE
GALVANIZED SHIP RIGGING, MINING, TILLER,
ELEVATOR, TINNED & COPPER ROPE, SASH CORDS.
LARGEST WIRE ROPE WORKS IN THE WORLD.
IRON & STEEL WIRE OF EVERY KIND.
TELEGRAPH WIRE, HARD & SOFT COPPER WIRE
INSULATED FOR ELECTRIC USE.
SWEDISH IRON WIRE, CRUCIBLE STEEL WIRE.
TRENTON, N.J. & 14 DRUMM ST. SAN FRANCISCO, CAL.

THE AMERICAN SUGAR REFINERY COMPANY,

MANUFACTURERS OF THE

CELEBRATED CUBE SUGAR,

Supplies Only Exporters and the Jobbing Trade.

This Company manufactures all the Grades of HARD and COFFEE SUGARS and SYRUPS. Special attention given to the making and Packing of Loaf Sugar for Export.

208 CALIFORNIA STREET,

SAN FRANCISCO, CAL.

E. L. G. STEELE,
President.

Dr. MINTIE**THE SPECIALIST,**

No. 11 KEARNY ST., San Francisco.

Treats all Chronic, Special and Private Diseases with Wonderful Success.

THE GREAT ENGLISH REMEDY

Is a never-failing cure for NERVOUS DEBILITY, FAINTED VITALITY, SEMINAL WEAKNESS, SPERMATORRHOEA, LOST MANHOOD, PROSTATITIS, IMPOTENCY, Paralysis and all the terrible effects of self abuse, youthful follies and excesses in mature years, such as loss of Memory, Lassitude, Nocturnal Emissions, Aversions to Society, Dimness of Vision, Noises in the Head, excess in drinking intoxicating liquors, the vital fluid passing unobserved in the urine, and other diseases that lead to insanity and death.

Dr. Mintie who is a Regular Physician Graduate of the University of Pennsylvania, who will agree to forfeit \$500 for a case of this kind the **Vital Restorative**, under his special advice and treatment) will not cure, or for anything impure or injurious found in it. **Dr. Mintie** treats all PRIVATE DISEASES SUCCESSFULLY WITHOUT MERCURY. **Consultation Free.** Thorough examination and advice, including analysis of urine, \$5. **Pack of Vital Restorative**, \$1.50 a bottle, or four times the quantity, \$5; sent to any address upon receipt of price, or C. O. D., secure from observation, and in private name if desired, by **Dr. A. L. Mintie**, 11 Kearny street, San Francisco, Cal.

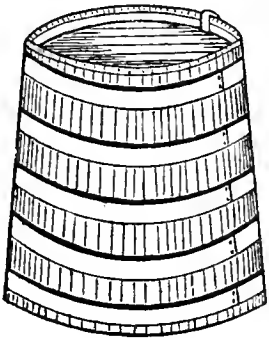
Send for pamphlet and list of questions.

SAMPLE BOTTLE FREE.

Will be sent to any one applying by letter stating symptoms, sex and age. Strict Secrecy in regard to all business transactions.

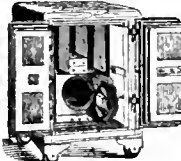
DR. MINTIE'S KIDNEY REMEDY NEPHRETICUM, cures all kinds of Kidney and Bladder Complaints, Gonorrhea, Gleet, Leucorrhea, etc. For sale by all Druggists; \$1 a bottle, 6 bottles for \$5.

DR. MINTIE'S DANDELION PILLS are the best and cheapest **DYSPEPSIA** and **BILIOUS** cure in the market. For sale by all Druggists.

REDWOOD TANKS**F. KORBEL & BROS.**

727 BRYANT ST., S. F.,

Orat NORTH FORK MILL, Humboldt Co., Cal.

FIRE-PROOF SAFES ALL SIZES.

built to order.

CHAS. WALTZ,
11 Drumm Street, SAN FRANCISCO, CAL.

Write for prices and information.

RUPTURE **REPAIRED** CURED by Dr. Pierce's Great Discovery. Thousands of patients cured AT THEIR OWN HOMES. No Experiment! It does the Work! **Drs. FIERCE & SON, 704 Sac to St., San Francisco, Cal.**

THE COOS BAY STAVE & LUMBER CO.

— MANUFACTURERS OF ALL KINDS OF —

COOPERAGE GOODS!

Especially invite the attention of Wine Men to their unsurpassed facilities for supplying packages from a

5-GALLON KEG TO A 160-GALLON PIPE OR PUNCHEON.

Our machinery enables us to execute all orders with promptness and economy. Price List on application.

OFFICE: 323 FRONT STREET,

WORKS BRANNAN ST., NEAR EIGHTH.

CLARIFYING AND PRESERVING WINES.

The undersigned having been appointed Sole Agents on the Pacific Coast by Messrs. A. BOAKE & CO., Stratford, Eng., for their renowned

LIQUID ALBUMENS,

Rec to call the attention of Wine Growers and Wine Merchants to the following articles, the superior merit of which has been confirmed by Silver Medals, the highest awards given at the International Exhibition of Paris 1875, Bordeaux 1882, and Amsterdam 1883, viz:

**LIQUID ALBUMEN FOR RED WINES,**

Claret, Burgundy and Port.

**LIQUID ALBUMEN FOR WHITE WINES,**

Sauvignons, Sherry and Madeira, also for distilled liquors; Whisky, Gin, etc., etc.

**WINE PRESERVER,**

For Preserving the Brilliance of the wines.

**WINE CORRECTOR,**

For Correcting the Roughness of Young Wines.

**WINE RESTORER,**

For Restoring Badly Made or Badly Treated, Harsh and Tart Wines.

A trial according to directions will prove the superior qualities of these finings. For sale in quantities to suit by

CHARLES MEINECKE & CO., Sole Agents,**314 SACRAMENTO STREET, SAN FRANCISCO.****WM. T. COLEMAN & CO.,****Commission Merchants.****SAN FRANCISCO,**

Agency WM. T. COLEMAN & CO.,

ASTORIA, Or.,**CHICAGO,****NEW YORK,**

Agency WM. T. COLEMAN & CO.,

LONDON.

With Agents and Brokers in every Commercial City of Prominence in the Union.

WE MAKE A SPECIALTY OF HANDLING THE**RAISIN CROP OF CALIFORNIA!**

And amongst others we are Agents for

Riverside Fruit Company of Riverside, Miss Mary F. Austin of Fresno, McPherson Bros. of Orange, T. C. White of Fresno.

With many other of the Most Prominent Curers of this State.

Our Facilities for Promptly Placing and widely Distributing Their Produce Can be Ascertained from the Above well-known Curers.

We are also Large Handlers of

ORANGES, DRIED FRUITS, HONEY AND BEANS**IN THE EASTERN STATES.**

Advances Made when Required, and Full Information of Markets Promptly Given. Address

Wm. T. COLEMAN & Co.**MARKET & MAIN STS., S. F.****"LE MERVEILLEUX"****MOST POWERFUL****Wine and Cider Press****YET PRODUCED.**

Patented in France, England, Germany, Belgium, Italy, Norway, Sweden, Denmark and the United States.



This press (a French invention) has been used several seasons in the vine districts of France and Germany with great success, and is now introduced to the American public for the first time.

Its advantages are: Rapidity of action and limitable power. With a single effort 3 or 4 times more power can be obtained than with any other press known at this day. It is also cheaper, capacity considered, than any other press in the market. Model on exhibition at office of F. W. KROGH & CO., 51 Beale St., San Francisco, Cal.

PARE BROS.,

Sole Agents for United States,

Fresno, Cal.

Send for Circular.

Valuable Patent**FOR SALE.****The Claus Improved****GRAPE-VINE TRELLIS.**

LATELY PATENTED, ATTRACTS GREAT ATTENTION among vintners everywhere as far surpassing any other form by efficiency and perfection. Generally acknowledged to be a meritorious invention and an unrivaled progress in viticulture, it will pay its application tenfold. It is truly a first-class acquisition.

RIGHTS OF THIS PATENT

FOR SALE BY

AMERICAN PATENT AGENCY,

188 & 190 WEST 5th ST.,

Cincinnati, Ohio.

Full descriptive illustrations, costs, etc., given by me above and the inventor

C. H. TH. CLAUS,

Cor Iowa & Keokuk Sts., St. Louis, Mo.

WOODLAND WINERY**FOR SALE.**

Located at Woodland, Yolo County, Cal.

Complete in all its Appointments. Capacity 120,000 gallons. Steam Crusher, Hand Crusher, two Stills, Syrup Pan, Pumps, and everything Complete. Cooperage in best condition.

TWO-STORY BRICK BUILDING,
125x60 Feet. Fifty rods from Depot.

Three thousand tons Wine Grapes raised here last season. This is a rare chance for engaging in this business. For full particulars inquire at office of

LANDBERGER & SON,
123 California Street, S. F.

— OR TO —

CLARK & CULVER, Proprietors,

Woodland, Cal.

HONOLULU CASTLE & COOKE, SHIPPING AND

COMMISSION MERCHANTS
Honolulu, Hawaiian Islands.

—AGENTS FOR—

THE KOHALA SUGAR CO.,
THE HAIKU SUGAR CO.,
THE PAPAIOU SUGAR PLANTATION
THE WAIALUA SUGAR PLANTATION
THE PAIA PLANTATION
A. H. SMITH & CO.,
THE N. E. M. LIFE INSURANCE
CO. BOSTON.
THE UNION INSURANCE CO.
OF SAN FRANCISCO,
THE GEO. F. BLAKE MFG CO.,
STEAM AND VACUUM PUMPS,
D. M. WESTON'S CENTRIFUGAL
MACHINES.

WM. G. IRWIN & CO.

SUGAR FACTORS AND

COMMISSION AGENTS

Honolulu, H. I.

—AGENTS FOR—

HAKALAU PLANTATION.....Hawaii
NAALEHU PLANTATION.....Hawaii
HONUAPO PLANTATION.....Hawaii
HILEA PLANTATION.....Hawaii
STAR MILLS.....Hawaii
HAWAIIAN COM'L & SUGAR CO.....Maui
MAKEE PLANTATION.....Maui
WAIHEE PLANTATION.....Maui
MAKEE SUGAR CO.....Kauai
KEALIA PLANTATION.....Kauai

Agents for the

OCEANIC STEAMSHIP COMPANY.

ANGLO - NEVADA Assurance Corporation —OF— SAN FRANCISCO, CAL. FIRE and MARINE.

Subscribed Capital \$2,000,000.

OFFICE: 410 PINE ST.

DIRECTORS:

LOUIS SLONS, J. W. MACKAY,
J. B. HAGGIN, W. F. WHITTIER,
J. ROSENFIELD, E. E. EYRE,
J. L. FLOOD, L. L. GRIFFITH,
G. L. BRANDE, J. GREENBAUM,
W. H. DIMOND.

This Corporation is now prepared to receive applications for Fire and Marine Insurance

G. L. BRANDER, President
J. L. FLOOD, Vice-President
J. P. FARNFIELD, Secretary
J. S. ANGUS, Assistant Manager

Bankers, The Nevada Bank of San Francisco

A. ZELLERBACH,

IMPORTER AND DEALER IN

BOOK, NEWS, FLAT, WRITING
PAPER.

MANILA, WRAPPING AND STRAW PAPER,

Colored, Poster and Tissue Paper, Also Envelopes and Twines.

419 & 421 CLAY STREET,

A few doors below Sansome San Francisco, Cal



THE SOUTHERN PACIFIC CO.,

Respectfully invite the attention of TOURISTS AND PLEASURE TRAVELERS to their SUPERIOR WHITE LITS abounded by the Northern Division of its line for reaching the principal

SUMMER AND WINTER RESORTS OF CALIFORNIA

WITH SPEED, SAFETY AND COMFORT.

Presidents, Menlo Park, Santa Clara, San Jose, Mendocino, Mineral Springs, Gilroy, Hot Springs.

-MONTEREY-

THE QUEEN OF AMERICAN WATERING PLACES

Camp Goodall, Aptos, Loma Prieta, Monte Vista, New Brighton, Sequoia, Camp Capitola, and

SANTA CRUZ.

PARAISO HOT SPRINGS.

EL PASO DE ROBLES

HOT AND COLD SULPHUR SPRINGS.

And the only Natural Mud Baths in the World.

This Road runs through one of the richest and most fertile sections of California, and is the only line traversing the famous Santa Clara Valley, celebrated for its productivity, and the picturesque and park-like character of its scenery; as also the beautiful San Benito, Pajaro and Salinas Valleys, the most flourishing agricultural sections of the Pacific Coast.

Along the entire route of the "Northern Division" the tourist will meet with a succession of Extensive Farms, Delightful Suburban Homes, Beautiful Gardens, Immense Orchards and Vineyards, and Luxurious Fields of Grain; indeed a continuous panorama of enchanting Mountain, Valley and Coast scenery is presented to the view.

Characteristics of this Line:

GOOD ROAD-BED. STEEL RAILS. ELEGANT CARS.
LOW RATES. FAST TIME. FINE SCENERY.

TICKET OFFICERS—Pass near Depot, Townsend street, Valencia St. Station, and No. 613 Market Street, Grand Hotel.
A. C. BASSETT, Superintendent. H. R. JUDAH, Asst. Pass. and Tkt. Agt.

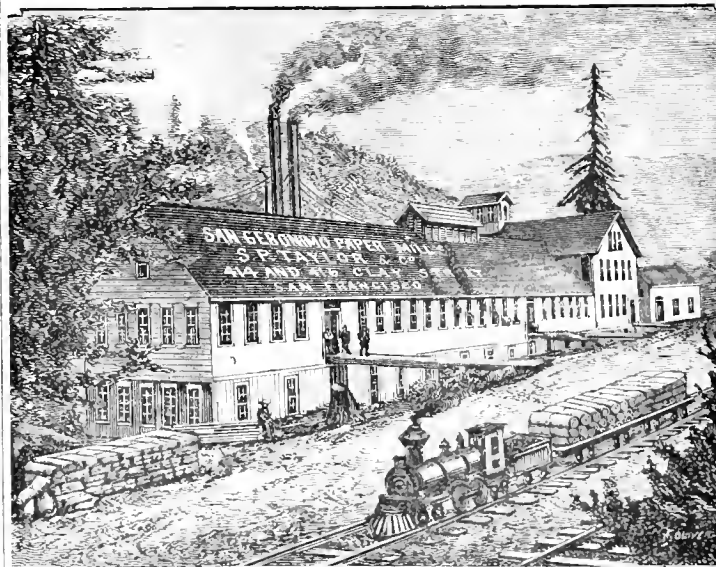
1856.

PAPER.

1886.

S. P. TAYLOR & CO.

Manufacturers of and Dealers in Paper of all kinds.



Book, News, Manila, Hardware, Straw and Tissue

PAPER.

Paper Bags, Twines, Etc., Etc.
PRINTED WRAPPERS A SPECIALTY.

Proprietors Pioneer and San Geronimo Mills. Agents for South Coast (Straw) Mills.

414 and 416 CLAY ST., SAN FRANCISCO.

S. P. COMPANY.

QUICK TIME AND CHEAP FARES

To Eastern and European Cities

Via the Great Transcontinental All Rail Routes.

OF THE

SOUTHERN PACIFIC COMPANY.

(PACIFIC SYSTEM)

Daily Express and Laidout Trains make prompt connections with the several Railway Lines in the East.

CONNECTION AT

NEW YORK AND NEW ORLEANS

with the several Steamer Lines to

ALL EUROPEAN PORTS.

PULLMAN PALACE SLEEPING CARS

attached to Overland Express Trains.

THIRD-CLASS SLEEPING CARS

are run daily with Overland Emigrant Trains.

No additional charge for Berths in Third-class Cars.

22^d Tickets sold, Sleeping-car Berths secured, and other information given upon application at the Company's offices, where passengers calling in person can secure choice of routes, etc.

Railroad Lands

FOR SALE ON REASONABLE TERMS.

Apply to, or address,

W. H. MILLS, JEROME MADDEN,
Land Agent, Land Agent,
C. P. R. R. SAN FRANCISCO, S. P. R. R. SAN FRANCISCO

A. N. TOWNE, T. H. GOODMAN,
General Manager, Gen. Pass. & Tkt. Agt.
SAN FRANCISCO, CAL.

REWARD OF \$10-\$50 TO EVERY PERSON sending us valuable information of school vacancies and needs. No trouble or expense. Send stamp for circulars to CHICAGO SCHOOL AGENCY, 185 South Clark Street, CHICAGO, ILL. N. B. We want all kinds of Teachers for Schools and Families.

SHIPPING.

OCEANIC STEAMSHIP COMPANY.

Carrying the United States, Hawaiian and Colonial mails for

HONOLULU, AUCKLAND, and SYDNEY
WITHOUT CHANGE.
The splendid new 3,000 ton Steamship



ALAMEDA

Will leave the Company's wharf, corner Stewart and Folsom streets,

SATURDAY, JULY 31st at 2 P. M.
Or immediately on arrival of the English mails.

FOR HONOLULU AND RETURN

The Steamer

ZEALANDIA--Monday, August 2nd

For freight or passage apply at office, 327 Market st

JOHN D. SPRECKELS & BROS.,
General Agents.

OCCIDENTAL & ORIENTAL STEAMSHIP COMPANY.

for JAPAN and CHINA.

Steamers leave Wharf corner First and Brannan sts., at 2 o'clock, P. M., for

YOKOHAMA and HONGKONG.
Connecting at Yokohama with steamers for Shanghai, 1886.

STEAMER, FROM SAN FRANCISCO.
BELGIC.....SATURDAY, JULY 31st
SAN PAOLO.....SATURDAY, AUGUST 21st
OCEANIC.....SATURDAY, SEPT. 11th
GALIC.....THURSDAY, SEPT. 30th
DE GIO.....TUESDAY, OCTOBER 19th
SAN PAOLO.....TUESDAY, NOVEMBER 9th
OCEANIC.....WEDNESDAY, DEC. 1st
GALIC.....TUESDAY, DECEMBER 21st

EXCURSION TICKETS to Yokohama and return at reduced rates.

Cabin plans on exhibition and Passage Tickets for sale at C. P. R. Company's General Office, Room 74, corner Fourth and Townsend streets.

For freight apply to GEO. H. RICE, Freight Agent, at the Pacific Mail Steamship Company's Wharf, or at No. 202 Market street, Union Block.

T. H. GOODMAN, Gen. Passenger Agent.
LELAND STANFORD, President.

SPRAY PUMPS.

Fruit Growers, Farmers, and all desiring to purchase a Spray Pump that is far ahead of all others in the market, as it is the ONLY Pump made with all metal valves, should buy the "CLIMAX SPRAY PUMP," all complete with tube, spray nozzle, plain nozzle, galvanized iron can, six feet of best Rubber Hose, capacity, 8 gallons; all ready to use. Price, \$15.00. Good Agents wanted at once. Send for Circulars. 211 California St., San Francisco, Cal.

FREDK WM. LUTTGEN,

COMMISSION MERCHANT,

(P. O. BOX 829) 51 Warren St., New York.

Solicits consignments of California Produce, and orders for the purchase of Merchandise, generally.
Eastern Agent for Eclipse Champagne.

JAMES HUNTER

GAUGER OF WINES AND SPIRITS.

(Established 1851.)

OFFICE-323 FRONT STREET,
San Francisco.

BONESTELL
AND CO.
PAPER WAREHOUSE
IMPORTERS OF ALL KINDS OF
Printing and Wrapping Papers.
401 & 403 BANSOME ST., S. F.

THE SAN FRANCISCO MERCHANT.

THE ONLY VITICULTURAL PAPER IN THE STATE.

Devoted to Viticulture, Olive Culture, and other Productions, Manufactures and Commerce of the Pacific Coast.

VOL. XVI, NO. 9.

SAN FRANCISCO, AUGUST 13, 1886.

PRICE 15 CENTS

ALCOHOLIC DRINKS.

[From the London Times.]

Among the many visitors to the Health Exhibition, there will almost certainly be some to whom the whole class of products comprised under the description of "alcoholic beverages" will appear to be entirely out of place, and who, if they could have their way, would consign such beverages to an exhibition of a totally opposite title and tendency. These beverages, however, are displayed under the sanction of the Council of the Exhibition, and their appearance almost compels us to approach the much-disputed question of the position which should rightly be assigned to them. Regarded as an episode in the history of opinion, it is not a little curious to consider the controversy about the use and abuse of alcohol which, on one side at least, has been carried on with great vigor and persistency for the last forty or fifty years; and which has been coincident, in point of time, with the marked change in the manner of using wine and other liquids which has been in progress ever since the pacification of Europe by the battle of Waterloo. The nature of that change may probably be summed up by saying that whereas men in easy circumstances were once accustomed to dine at four or five o'clock, and to sit for some hours afterwards, drinking a single wine in many cases to excess, so now the enormously greater number of men in similar circumstances dine much later, and take two or three varieties of wine in moderation. At the same time, however, they probably take wine also at earlier meals and at irregular periods, with the general result that, although actual excess at any period may be unknown, the total quantity consumed has not diminished to the extent which is commonly supposed. The habits of earlier generations led not infrequently to actual drunkenness, to which no social stigma was then attached; and the example set by the better classes was largely followed by those beneath them. To be drunk, occasionally or frequently, was not thought disgraceful in any one; and the varied and grotesque nomenclature of the condition is alone sufficient to show that it was by no means severely or sternly regarded. It is sufficient to show, moreover, that drunkenness, at a time when people were more familiar than they are now with its occurrence and with its effects, was not looked

upon as in any way a very serious affair, and that its comic side was more present to their thoughts than any of the real or alleged evils which are now supposed to be traceable to it. In process of time, as the gradual abandonment of drunkenness among the better classes caused it to fall into disrepute, and to be practised chiefly by those who were comparatively indifferent to the force of opinion about other matters, it became associated in the public mind with general disorderliness; and hence it was to a great extent abandoned by the respectable members of the industrial classes, as it had previously been abandoned by the more wealthy. Such an association with disorderliness could not fail to justify itself before long; and, when it was generally considered to be disreputable to be drunk, few but those who were disreputable in other ways would allow their drunkenness to be known and conspicuous. The result has been, if we exclude a comparatively small number of cases of manifest disease, that drunkards now are mainly of two sorts, either professional criminals or persons of slender self-control who are ready at any time, if tempted, to lapse into criminality. Partly, it may be, from the changed circumstances in which a particular form of self-indulgence came to be commonly displayed, there arose a school of persons who persuaded themselves that this form of self-indulgence was to blame for nearly all other evidences of want of self-control which might be afforded by those who drank to excess; and hence an indictment was framed against "drink," as a cause of various crimes, offences and improprieties, which has been very widely and generally repeated. Grave judges have asserted from the bench that "drink" is the chief cause of criminality, without seeming to reflect that, among their own most illustrious predecessors in office, among the judicial luminaries whose names are held in universal respect, it would not be difficult to find many whose custom it was to yield to the fashion of the time in which they lived, and who comparatively seldom went to bed sober. The common statement of a prisoner, to the effect that it was "all the drink," may be taken for what it is worth; and, when it represents anything more than the habitual unvarity of a criminal, exercised in the task of saying something which he has been led to expect will be pleasing to the ears of the author-

ities who have him in their power, it may probably be taken to mean that, when about to engage in some criminal undertaking, he fortified himself by a stimulus against misgivings incidental to the war against society in which he was engaged. If crimes must be committed, and at present there seems little reason to expect their entire cessation, it is perhaps better that those who commit them should be drunk than that they should be sober. A drunken criminal is more likely than a sober one to leave traces which may lead to his detection, and is also more likely to fail in his undertaking. A burglar armed with a revolver, after the modern fashion, would be a much less formidable person if he were under the influence of liquor. There is, of course, the chance that he might use his weapon more recklessly; but there is also the chance that he might betray himself by using it prematurely, and the certainty that he would be less likely than if sober to hit his mark.

It is clearly only necessary to look back to the period when drunkenness was much more common than it is now, and when it was common among good citizens and law-abiding persons, in order to perceive that the assertion that drink is a cause of criminality can only be accepted under great reservation. The grandfathers of the present generation, if they had been asked about the connection between drink and crime, would have scarcely said more than that young bloods were apt to be riotous in their cups, and that they were more likely than if sober to let their frolics end in an attack upon the watch. When the phrase "as drunk as a lord" was current in men's mouths, there was no special tendency to crime among the members of the peerage. Between drink and law-breaking there was, in fact, no obvious connection, until the time came when those who were exceptionally liable to break the law came also to enjoy almost a monopoly of drunkenness. Persons of feeble organization, always feeble mentally and often physically as well, the moral residuum of the community, are wanting in every form of self-control. They like drink, not only for the flavor of the liquid, but also for the effect of a stimulus upon their dull senses and torpid brains. They commit crime, either as a profession or as the result of any trivial inducement which may come in their way; and it may be admitted that when they are

some-what, but not much, under the influence of drink they are more likely to commit crime than when they are entirely sober. The action of the drink is threefold. It stimulates their imaginations, it excites their passions, and it renders them neglectful of the restraints of prudence. There cannot be any harm, and there may be much good, in persuading people of this class to become and continue total abstainers, but it may be doubted whether the good would be fully equivalent to the cost and pains which would have to be expended in producing it. What is really wanted is to place the moral residuum of the community under conditions which shall increase their power of self-control, and which shall provide for its continual increase in the course of successive generations. This is not to be done by the apparently simple process of inducing the present generation to refrain from strong drink, excess in which is merely one form in which their weakness displays itself. To persuade or compel the residuum to keep sober would not bring us a single step nearer to the millennium. A sufficient proof of this is afforded by the state of Ireland, where, it is said, the exhortations of the late Father Matthew effected an enormous diminution of drunkenness, and where, in all probability, there is more crime and more sympathy with crime than in any other country of equal population. It is irrelevant to argue that crime is mostly connected with political and class hatreds, for it is not on that account any the less criminal; and those who maintain otherwise can only be regarded as illustrations of Macaulay's well-known saying "that people change the fashion of their vices as they change the fashion of their hats and coats, and wonder at the depravity of their ancestors." Whatever may be the state of feeling in the country itself, it is unquestionable that, on this side of St. George's Channel, people generally would think it better that an Irishman should be addicted to whisky, even in excess, than that he should be skilful and successful in taking aim at a landlord from behind a hedge.

The advocates of total abstinence, feeling the hopelessness of any endeavor to win over the criminal and habitually self-indulgent classes by persuasion, have now for some years sought to obtain legislation which should place difficulties in the way of the sale of drink, and they would not

scruple to restrict the liberties of the whole nation, in order that those who drink to excess might be restrained from doing so unless by forethought and with contrivance. The difficulties in the way of the desired legislation would be much diminished if it could be shown that the use of alcohol, in any form, is more or less hurtful, and hence much of the energy of the advocates of abstinence has been directed, of late years, to the establishment of this position. If it could be shown that strong drink, even when used with moderation, is in the majority of cases injurious, then the repression of its sale would not only place difficulties in the way of the drunkard, whose excesses are on all hands acknowledged to be evils, but would also confer a benefit upon the entire community. If, on the other hand, the moderate use of strong drink is, generally speaking, beneficial, then the business of teetotalizing A, the good man, in order to save B, the sot, is, in the words of Dr. Moxon, "throwing good after bad." In order, therefore, to arrive at any clear comprehension of the merits of the question, we are called upon to consider what is the proper place of alcohol in a scale of dietary, and what are the uses which it fulfills in the human economy.

On approaching the subject from this point of view, what we first and most unquestionably find is that all prescription is on the side of alcohol. Stating the case broadly, it may be said that no doubt as to its generally beneficial influence was ever suggested until a time within the memory of some who are still living. From the dawn of history until well within the nineteenth century the habitual use of alcohol was considered beneficial by the great majority of western people; and, what is still more to the purpose, it was used with the greatest freedom among these nations who became the ruling powers of the world. Even now it would be almost possible to divide nations into two classes, the habitual drinkers of alcohol and the habitual abstainers from it; and the division would be found to correspond, at least with tolerable accuracy, with that further one which might be made between the nations which rule over others and the nations which have been subjugated by others. There is abundant evidence that life can be sustained, and even that health can be preserved, especially in hot climates, without the use of alcohol; but the practical question is whether this life is as full and useful as it might be, or whether it does not fall short of the proper development of the capacities of the individual. We have lately heard a good deal of so-called scientific evidence about the usefulness of alcohol because certain chemists have been unable to trace its precise destination in the economy; and the argument is about as valid as some of those which were adduced by the ingenious author of "Historic Doubts concerning the Existence of Napoleon Bonaparte." The uses of science upon such a point are mainly to discover the explanation of facts already established by universal, or at least by wide, experience; and the idea of attempting to controvert experience by a mere negation is on the face of it an absurdity. The medical testimony that life has been maintained for long periods upon alcohol alone, or at least upon alcohol mixed only with water and with some insignificant quantity of nutritive material, is abundant and convincing, and completely establishes the claim of alcohol to be described as a food of an important and valuable kind. Quite recently the total abstainers from it

have taken to distinguish themselves by wearing a badge of blue ribbon, and they could hardly have done anything less calculated to promote their cause. An impartial observer is now able to walk abroad and to compare the teetotalers in the streets, in railway trains, and in omnibuses with the great bulk of the presumably moderate-drinking population. The blue-ribbon wearers present, of course, great varieties of character and of aspect; but, if we set aside exceptions, it would be difficult to deny that the "army" is composed, in the main, of persons of inferior physical development, and, if we may judge by their facial expression, of those who are not remarkable for intellectual power. A popular writer once said that the Bank holidays had brought into prominence the frequency in London of a very objectionable couple, "the small young woman and the small young man," and it rather seems as if "smallness" (in the widest sense of the word) and blue ribbon were extremely prone to go together. Such a civilization as ours produces an abundant morbid undergrowth of feeble bodies and lopsided minds, of persons who are easily led by their emotions or by what they fancy to be eloquence, and who are ready to give their adhesion, such as it is, to any fad which is pressed upon them with sufficient volubility and frequency. Their individual insignificance becomes less oppressive to them when they fancy themselves members of a "great" organization, and their vanity is gently titillated by the idea of setting an example of superior virtue to their neighbors. They become anti-vaccinators, or anti-vivisectionists, or teetotalers, or all three, with equal lightness of heart and in equal ignorance of all the questions on which they claim to have formed an opinion. It is urged, on behalf of the teetotalers, that they at least prove their sincerity by surrendering something; but the argument is not based upon full knowledge of the premises. Alcohol, to be useful, must appeal to some power latent in the organism, or in other words must serve as fuel to the furnace which supplies the body with force. Where the latent power is wanting, or where the furnace is small and badly constructed, the fuel is not consumed, and the alcohol disagrees and becomes a source of discomfort, or even of disease. As a rule teetotalers are persons who do not require alcohol; in some cases because an active and powerful digestion enables them to take a sufficiency of nutriment in other forms, and to live their whole lives upon those forms alone; in others, because their capacity for exerting force is so limited that they are compelled to be careful in consuming the materials by which it is supplied. In both cases the tastes are an expression of the wants of the system; and people who are quite right in being guided by their own tastes, and in accepting them as laws to themselves, are just as wrong in believing that the tastes of A should be accepted as laws by B, whose tastes are different. Dr. Moxon, from whom we have already quoted, says: "I believe, that to a large extent, teetotalism lays its firmest hold on those who are least likely to become drunkards and are most likely to want at times the medicinal use of alcohol—sensitive, good-natured people of weak constitution."

If we come to the actual injurious effect of occasional or even frequent excessive drinking, as such drinking was practised by the great-grandfathers of the present generation, we find them to be far less than is commonly supposed. Every physician,

and almost every man of the world, could multiply instances to show that alcoholic excess in the strong is often an apparently harmless habit. There are hundreds of familiar cases in which men of very active lives, or men who were called upon to sustain great mental responsibilities, have drunk very freely every day, and yet, notwithstanding this, or perhaps even because of it, have acquitted themselves well in the face of difficult duties, and have lived to extreme old age. Some physicians have arrived at the conclusion that, if the human race had been teetotalers and vegetarians, certain maladies, of which gout may be taken as the type, would have been unknown; but it is necessary to recollect that even members of the most learned professions sometimes arrive at conclusions which are a little in excess of the evidence on which they are avowedly founded. Even if this particular conclusion be fully justified, there are few Englishmen who would exchange their national history, gout and drunkenness included, for the national history of the Arab or the Hindoo. It must be admitted, however, that the harmlessness of the free use of alcohol ceases as soon as this free use is indulged in by a feeble or incapable person. Where there is neither hard physical labor, nor, in a still greater degree, where there is no continuous strain upon the intellect, the alcohol is not required as a source of power, and it becomes a surplus material which has to be eliminated from the system, and which ever then acts as a poison. Dr. Moxon has drawn the picture of "a sot" with admirable force and fidelity, describing how the overgrowth of his connective tissue has choked and destroyed the finer elements of nerve and gland, "leaving of him unchanged nothing that is worth speaking of." In the enormous majority of healthy people, on the contrary, the experience of mankind shows that some form of alcohol is a food which is easily and without strain on the digestive organs converted into force, bearing to a supply of animal food somewhat the relation which such a supply itself bears to an equivalent quantity of nutritive substance in the form of vegetable matter. We all know that the vegetable-feeding animals require and possess a far more complicated digestive apparatus than the carnivora, for whom, it may be roughly said, vegetable matter is converted into flesh and blood by the creatures on which they feed, leaving to the flesh-eaters only the comparatively easy task of assimilating material which is already brought into close resemblance to their own. The lower animals, which have little or no intellectual life, and no purposes in living beyond the supply of their bodily wants and the propagation of their species, may without detriment devote all their nervous energy to the digestion of their food; but it is unquestionably true, as a general proposition, that the more simple and more easily digested diet of the carnivora does not make so large a demand upon the sum total of their nervous energy as is made by the more laboriously digested diet of the vegetable feeders, and hence that the former have much more spare energy to devote to other purposes than the latter. The case is something like this—that the vegetable feeder requires for the digestion of its food a large part of the energy which in the carnivora, not being required for digestion, is free to be utilized in the pursuit and capture of prey. In mankind, who possess a capacity for living upon either animal or vegetable food, or

upon an admixture of the two, precisely the same thing will apply. The purely vegetable feeders display a tendency to abdominal enlargement, and become comparatively lethargic after the abundant supplies of food which they are obliged to consume, and which severely tax their nervous energies for its digestion. The purely animal feeders, such as the Guachos of South America, almost live in the saddle, and are as restless and as perpetually in motion as any of the carnivorous animals. Assuming that an individual of either race possesses a power of developing a definite quantity of nervous force, the vegetable feeder uses it mainly in digesting his heavy repast, while the flesh-eater, after digesting his repast, has nervous force left for the maintenance of a high degree of activity. In the conditions of civilized life the same rule holds good. The agricultural laborer, whose mind is comparatively inactive, and whose physical force is usually exerted in a slow and deliberate manner, and in efforts which have been modified automatically by training and habit, subsists upon a diet which is largely vegetable, or is at best supplemented by animal materials of an indigestible kind, such as hard cheese, with only an occasional bit of meat. The athlete, who not only exerts muscular force very energetically, but who requires to have a reserve of it, to sustain a "spurt" at a critical moment, and still more the brain-worker, cannot afford to devote even a large part of the total of his nerve-force to the mere work of digesting, and requires a diet which shall make the least possible demand upon him. Now, the advantage of alcohol to men of this class is that it gives a supply of force which is obtained by the mere absorption of liquid, without any demand upon the digestive organs at all; so that a light and easily-digested meal, supplemented by alcohol in proper quantity and in suitable form, is equivalent as a restorative to a much heavier meal without the alcohol, and is unattended by the disadvantage, inseparable from the latter, of consuming nerve force in excessive quantity for its own assimilation. In other words, if A and B start with equal nerve-force, A being a total abstainer from alcohol and B a reasonable and moderate consumer, A must expend more energy than B in the mere maintenance of his own fabric, and will have by so much less energy available for work external to himself. Other things being equal, B will be more useful in the world than A, either in the quantity of his work or in the quality of it.

The other side of this question is that, to many persons, alcohol is so immediate a stimulus, one to which the nervous system responds so promptly, that there is frequent temptation to seek to carry its effects too far, and to take it to excess. By "excess" in this sense is not meant intoxication, but simply undue proportion, the consumption of more alcohol, in relation to solid food, than in a perfect scale of diet would be allowed. The temptation to this is the greater, in that alcohol does not pall upon the palate, and that hence it can be taken when solid food would be distasteful. The measure of excess, in the indicated sense, would probably differ widely in different individuals; but no one who deals quite fairly with himself will ever find any practical difficulty in arriving at a standard of quantity for his own guidance. In a condition of health, any undue preponderance of alcohol in the diet is speedily felt; and it is only when excess becomes habitual that it can be indulged in without consciousness of its nature.

The assertion that the moderate drinker, other things being equal, will do better work in the world than the total abstainer, is one which the members of the latter class cannot be expected at first sight to accept. It is, however, the simple expression of an elementary physiological truth, with the reservation that the alcohol must be taken together with and as part of food, and in quantity which is not disproportionate or excessive. If alcohol be taken apart from food, merely as a stimulant when the brain is tired, the work done under its influence will seldom or never be of first-rate quality. Without it, very possibly, no work might be done at all; and there may be many instances in which its use, in this way, is beneficial. In such circumstances, however, it would, no doubt, be more beneficial to rest. If we wish to compare the work done by moderate drinkers, not at all when under the influence of alcohol as a temporary stimulant, but as the result of its fitting employment as a source of energy which makes no call upon the digestion, with the work of total abstainers, the difficulty will be to find the materials for the comparison. The best work of the world has been done by moderate drinkers; and the work of total abstainers as far as we are aware, has been of a very commonplace kind, even when it has not been limited to the violent advocacy of doctrines which science and experience must alike condemn.

We must arrive, then, at the general conclusion that for the enormous majority of sober people in these islands, alcohol is a useful article of diet, as food which will liberate, for employment in any required direction, force which would otherwise have been consumed in the digestion of solids. Against this we have to set the assertion of teetotalers, resting on we know not what evidence, that there are half a million of our fellow-subjects who habitually drink to excess, and the knowledge that to those who do so, whatever may be their number, alcohol is a highly injurious agent. The practical question is, ought we to deprive twenty-nine and a half millions of people of an enjoyment, and of the use of a beneficial agent, in order to prevent half a million from abusing it? Are the half-million worth the sacrifice? The question is one which different people will answer in different ways; but our own opinion would be distinctly in the negative. We should think it as reasonable, because carriage accidents occur from time to time, to forbid the use of horses for purposes of draught; or to forbid the use of fire because it may be applied to burn down hayricks.

A really important element of the question, and one not hitherto mentioned, is that alcohol is a source of great and innocent pleasure to vast numbers of persons. Not only does it render them more efficient members of the community than they would be without its help, but it also gives light and color to lives which are often sadly wanting in both. In the words of Scripture, it "maketh glad the heart of man," and the agencies which have this effect are not so numerous, neither is the need of them so slight, that we can afford to despise and reject a single one. The reclamation of the half a million drinkers to excess, if half a million there be, must be attempted by other machinery than the commonplaces of teetotalism, or the denial of the use of alcohol to those who have no temptation to abuse it.

If, then, we must concede to alcohol an important place in the dietary of man, and

a fitting share of notice in a "Health" Exhibition, the next question to be considered will have reference to the dietetic values of its different forms, typified respectively by fermented malt liquors, wines and distilled spirits.

In malt liquors, as a rule, alcohol exists in a state of such dilution that the liquid may be drunk with sufficient freedom to quench thirst, and this moderate quantity is combined with variable proportions of sugar, starch and other materials derived from the malt, and left unchanged by fermentation. The chief drawback to the use of malt liquors is the liability of consumers to be led on by thirst to drink more of them than is desirable, and hence, when used distinctly as beverages, they should be weak rather than strong. Some of the foreign beers would appear to be preferable to the English from this point of view, since a thirsty man may drink freely of the former without much risk of taking more alcohol than he can carry. The low price of beers prohibits them from being kept, save in exceptional cases, and when originally of great strength, and hence they come to the consumer practically in the state in which they leave the manufactory.

Wines differ from beer chiefly in containing a larger proportion of alcohol and a quantity of vegetable acid derived from the grape. The alcohol (it is immaterial for this purpose whether it was originally contained in the wine or was added in process of manufacture) acts as a preservative and permits of long keeping, in the course of which certain chemical changes occur in the liquid, as a result of the mutual reactions of the alcohol, the acid, and the dissolved vegetable matters, and these changes give rise to the formation in the wine of new compounds, which may be generally described as "ethers," and which impart new and often exquisite flavors, together with added powers of stimulating without intoxication. A wine originally of fine quality, matured by keeping, owes but a small part of its special properties to its alcohol, and the bulk of them to new compounds which are often peculiar to itself, and which are never, perhaps, quite the same in the products of different vintages, or in two wines which have been kept under different conditions. In new wines, or in wines originally of poor quality and not containing the materials for the described changes, there is nothing to be considered beyond the actual percentage of alcohol, and the small amount of vegetable acid which they contain. The latter, to some palates, is agreeable and appetizing, and many persons, especially delicate and fastidious children, may often be helped to take meat by sipping mouthfuls of claret or hock during the meal. There are some to whom this use of light wines appears to be prejudicial, and the only safe rule with regard to it is that each man's tastes and experience must be his guides.

The stronger or artificially alcoholized wines, such as port and sherry, should seldom or never be taken undiluted, except with solid food, which may itself be regarded as a diluent. One of the most pernicious forms of the abuse of alcohol is unquestionably the "tip" of sherry or other stimulant between meals, which is often taken without even the shadow of an excuse existing for it.

The next point to which attention must be directed, is that the prejudicial effects of alcohol are frequently traceable to its having been habitually taken in too concentrated a form. Natural wines and malt

liquors may safely be used undiluted; but, as previously laid down, the stronger or highly fortified wines should never be taken except with food or mixed with water, and the same principle applies, it need hardly be said, to distilled spirits. For these, indeed, solid food is not a sufficient diluent, and they should always be freely mixed with water. For many persons, especially for those of gouty tendency, weak spirit and water is often a more wholesome dinner-drink than either wine or beer; but this is a question practically of medical detail, on which no general rule can be safely formulated.

To sum up what has been said, it may be assumed that the moderate use of alcohol, as an ingredient in a mixed diet, has the effect of minimizing digestive effort, and that in this way it affords a means of maintaining the human frame in the highest possible condition, and with the largest reserve of force for external use that is capable of being put forth by each individual organism. The total abstainers from it may be divided into three classes, which, even when taken together, constitute but an inconsiderable section of the community. There are some persons who seem not to require alcohol, because they easily digest a large quantity of solid food, and especially of saccharine and starchy matters. They do not feel any desire for alcohol, and are satisfied with their own bodily and mental condition while abstaining from it, but it is fairly questionable whether their work in life would not be better in quantity or in quality, or both, if they were to consume less solid food, and to make up for the deficiency by a little beer or wine. There are others who have a distinctly morbid tendency towards excess, a state of the nervous system, either inherited or acquired, in which moderation is impossible to them, and which leaves them no safety except in total abstinence. The difficulty with these persons is to keep them from drink, however hurtful they may know it to be, for their condition is one of disease, and they have seldom sufficient resolution to abstain. When they do abstain, they furnish striking examples of the success of teetotalism by being changed from a state closely bordering on insanity into responsible members of society; but the ordinary experience with regard to them is that they have a succession of relapses into intemperance, and that they ultimately die, directly or indirectly, from the effects of drink. The proper remedy for them would be a legislative one, if it could be so framed as to exclude the probability of its being abused by designing persons; but the subject is beset with difficulties, and is far too complicated to be fully considered in this place. The third class of abstainers is formed by those who are actuated in the main by benevolent and conscientious motives, which, unfortunately, are seldom controlled by the possession of adequate knowledge. Many clergymen abstain "for the sake of example," without pausing to consider whether the example may not, in some cases, be a bad one; and whether they would not discharge their manifold duties more efficiently by help of the added force which alcohol would give. Many persons get on fairly well without alcohol because their powers are never subjected to any considerable strain, and these persons too often break down when any strain comes upon them, unless they will consent to modify their mode of living. This, as is too well known, they will not always do; and every medical man has seen instances of fanatical teetotalism lead-

ing to complete destruction of the health of those who were governed by it.

If we attempt, in the same way, to classify drunkards, we find similarly well-marked differences between them. There are the cases of disease, sometimes constant, sometimes intermittent, but always uncontrollable by any effort of the will while the attack endures. Of such cases a few have probably been cured by total abstinence, but the majority of those who are said to be cured will eventually undergo relapse. Then there are the people already mentioned, who are not the subjects of disease, but who have strong criminal or self-indulgent propensities, and who are not subjected to any external influence by which these propensities can be kept under control. Now it cannot be disputed that all these drunkards, even if we admit them to amount to half a million in number, are but poor stuff, and that neither teetotalism nor anything else will bring much usefulness or goodness out of them. The proper remedy for the uncontrollable drunkness of disease, would be restraint of the sick man; the proper remedy for the drunkness of criminality or self-indulgence would be so sharp a punishment as to afford reasons for pausing before again committing the offence. Public opinion would very possibly now be prepared to sanction the effectual punishment of drunkenness; but the operations of teetotal societies rather tend to paralyze the hands of legislators. There is a continual expectation of some great reform by teetotal agency; and, as long as this reform is looked for, more likely methods of producing it are tolerably certain to be neglected. If it were once felt that teetotal societies, as far as the mass of drunkenness of the kingdom is concerned, have been a total failure, and that their operations have been practically limited to taking away drink from those who often require it and who have no temptation to abuse it, the question what to do with our drunkards would at once assume fresh urgency. At present, we believe, the teetotal societies do very little good and a great deal of harm. They fail to touch the evils of drunkenness, except in a very limited fashion, and they take away alcohol from vast numbers who would be better for the moderate use of it. We think the time has come when philanthropists should cease to listen to mere declamation, and should try to look calmly and fearlessly at the results of observation and experience. Many a good man is injuring his health and diminishing his usefulness in order to adhere, "for the sake of example," to a fantastic deprivation. If alcohol be, as we maintain, a useful ingredient of our daily food, the lamentations poured forth over the national "drink bill" are as misplaced as they would be over, say, the national shoe bill; and if any one asks for a definition of what constitutes moderation, it would hardly be possible to frame a better reply than that which has already been given to the same demand by Sir James Paget, who, after defending the practice of moderation as against abstinence, says:

"But some will say, 'What is this moderation? How may we define it?' Let those who thus ask try to define, to the satisfaction of any ten persons, what, under all circumstances and to all people, is moderation in bread or in the wearing of jewels, in hunting, or the language of controversy." The above quotation, together with those already taken from Dr. Maxon, will be found in a little volume on the "Drink Question," containing a collection of articles by London physicians and surgeons reprinted from the *Contemporary Review*. The articles embrace many aspects of the alcohol controversy, and nearly all of them will be found to repay careful perusal.

OUR CITY CELLARS.

[By Thomas Hardy, Bankside Vineyards, Adelaide.]

The first visited was the cellars of A. Haraszthy & Co., on Washington street, and to give some idea of their extent I got the area of them from Mr. Haraszthy himself. Below ground the principal cellars cover 250 x 137, and across a right-of-way, and got at by a tunnel under the street are two others—one 125 x 137, and a smaller one of 20 x 137. Above ground are three stories, each 125 x 137, and offices, &c., facing Washington street, 85 x 35. There is also a yard across the street or right-of-way, where several coopers and bottle-washers are employed. The principal part of the cellars below ground and the second-floor above are devoted to champagne making, which is carried on on a large scale, there being always 500,000 bottles in stock and in process of manufacture, and in one cellar on the ground-floor are twenty-eight oval casks of from 2,500 to 3,500 gallons each, all of oak, containing mostly dry wines. In the cellar is an immense blending tank made of three-inch redwood and strongly bolted together, and containing 15,000 gallons, and the wine is operated on by three sets of beaters revolving at from forty to eighty revolutions per minute, and driven by steam. The joints of this tank are perfectly wine-tight, and this is effected by using a cement or luting consisting of twelve pounds lead mutton tallow, two pounds of white lead, and half a gallon of glycerine well mixed together.

It is intended to put up some very large vats on the top-floor, and to pump up the wine, after blending, into them, and from them to run it off to any part of the cellars required. The wine for champagne is bottled at about six months old, and put in stacks in the second story above, and stoves keep this room at a required temperature to bring on the wine. When the breakage becomes considerable it is lowered down into the cellars, and after remaining some time in piles is treated to get the sediment down into the neck of the bottles, by placing the bottles in racks of a peculiar construction neck downwards. The rack is an invention of Mr. Haraszthy's, and he has it patented in the States. It takes six months to get the deposit down, and each bottle has to be handled many times before this result is obtained. The next process is the most difficult of all, and must be done by well-trained hands, and that is the disgorging, which is done by removing the cork and allowing the wine to drive out the sediment, and it is then dosed with the required amount of syrup, and refilled and corked, and is now ready for sale as soon as capped, labelled and cased. Messrs. Haraszthy & Co. make several qualities of champagne, the "Eclipse," selling for \$12 to \$15 per dozen, to inferior quality at \$8.

Mr. Haraszthy was taken to France by his father when a young man, and remained in the champagne cellars for some years to learn the business. He claims that his champagne is an almost pure article; that nothing is used but the small quantity of sugar for sweetening, and that is reduced lately to a minimum by blending sweeter wines. The strength of the "Eclipse" is 11° of alcohol, or 19 per cent. proof. I tasted some of this brand and found it clean and good, but too sweet for my palate; but no doubt they know the taste of their customers, and, if one may judge from the number of candy shops and the way sweets are used in the city, nothing can be too sweet for the majority of the people. The

bottles used are mostly secondhand ones, imported in crates from Liverpool, and are all washed on the premises. Most of the work is done by Chinamen, who get a dollar a day, but are overlooked generally by white men. About seventy are employed altogether.

Haraszthy & Co. also do a large trade in dry and sweet wines, and have a stock of 500,000 gallons in the cellars, besides that under treatment for champagne.

The cellars of S. Luchman, on Market street, in the heart of the city, are some of the oldest and most extensive, and every kind of wine and brandy is to be had here. The stock of wines here and in other cellars is said to be a million gallons. (The gallon here is eight pounds or a fifth less than ours.) There is a blending vat of 2,000 gallons, but not operated on by steam. A large trade is done in shipping to the Eastern States, and I was shown new red wines sold to go there at 42 cents per gallon, including the wood, which costs at least 6 cents per gallon. It is mostly sent in 100-gallon butts. This wine was being sent away at the time of my visit. I was also shown samples of various wines from bottles, but none from bulk. Some of the sweet wines were very good for their age.

We next saw the cellars of Luchman & Jacobi on Bryant street. It is a large two-story building, covering 140 by 160 feet, with cellars under the greater portion, and engine-house and cooperage at the back. The first floor is furnished with rows of splendid oak casks of 3,000 gallons each, and capable of containing 750,000 gallons. In the top story are piles of casks two and three deep, of 100 gallons each. A shipment of 17,000 gallons was being got ready to go by steamer for New York, via Panama, and the footpath in front was almost blocked up with casks and coopers working at shiving up and making ready. In the cooperage six men were at work putting together puncheons, the staves and heads of which are imported, already prepared, from the States of Indiana. Upstairs, in a close room, are four vats of 7,000 gallons, all heated by a steam coil in each vat. This is the cooking room where sherry is made. The heat is kept up to 140° Fahrenheit for three or four months, and in this way they claim to be able to get sherry fit to send out at a little over a year old. I tasted some samples of it, also of port, but neither would hold a candle to our Angaston ports and sherries. They have a sweet, strong, light-colored wine, made from almost any grape by stopping the fermentation with a heavy dose of spirit. This is called "Angelica," and is a great favorite with the Yankees, and I am told also with the niggers down South, who are many of them now able to indulge in wine and other luxuries. I sampled some very fair young Reisling and Zinfandel, but I begin to suspect that a great deal of wine is sold as Zinfandel which has very little of that grape in it. The strength of it was said to be 12° alcohol or 21° proof. Common white wine, dry, and of the last vintage, is now being sent away to the East at 42½ cents per gallon in the wood. Freights are now from 12 cents to 14 cents right through to New York by either steam or rail. It takes about sixteen days going by rail, and more than half of the wine and brandy goes that way now.

We next visited the cellars of Dreyfus & Co. on Fifth street, a very large two-story building, without any cellars below. The first floor all filled with ovals, all of oak, and mostly 2,500 gallons each. One cask

on the left as we enter the door is the largest oval cask in the city, and is over twenty feet high and fifteen feet in the staves, and contains 12,000 gallons. It is made of four-inch oak, and is decorated in the front with a carving of grapes and vine-leaves. On the top floor are piles and piles of 150-gallon casks, all filled with white wines of the last vintage. It seems to be the general practice to put the white wines in small bulk where possible, and the red in large casks; these 150-gallon casks are used for shipping away the wines. All new casks are steamed before being used. Dreyfus & Co. have also a sherry baking-house, but it was not in action at the time of our visit. They have large vineyards at Anaheim, near Los Angeles, 500 miles south of San Francisco, and from it they get the sweet and strong wines. They have also extensive vineyards planted, but not yet in bearing, at Glen Ellen, in the Sonoma Valley, and always hold a stock of wine of over a million gallons. They have offices in the heart of the city. Luchman & Jacobi have cellars there also, where they do their small business and office work. In both cellars steam-power is used for all purposes to which it can be applied. All the wine is pumped by steam from either fixed or movable pumps, agitators for blending wine, &c.; and where such large quantities of wine are handled it becomes a necessity to have all these appliances. After a trip into the country we visited the cellars of J. Gundlach & Co. on Second street, and well in the heart of the city. Their cellars are not so extensive as some, but are well arranged and well kept. They have from 500,000 to 600,000 gallons, and were able to show wines of considerable age; but I suspect or "guess" only in small quantities. A Reisling of 1870 was very fine, and by far the best I have yet seen; also a Gutedel of 1877, equal in every way to a first-class lock. All their wines are got up in splendid condition, and well capped and labelled. They have here, as in several other cellars in the city, a wine-bar, where people come in and pop down their five cents and help themselves to a glass of wine from bottles on the counter; this is called in some places the "sample-room," and I suspect that there is a good deal of sampling done in some of them.

Gundlach & Co. employ a number of coopers making up casks for export from prepared staves, and pay \$1¼ for setting-up 100-gallon casks. They are prepared by steaming before being used, and filled with water for a few days if possible.

The last cellars we visited were those of Messrs. Kohler and Frohling, at the foot of Montgomery street. This is about the oldest wine-cellar in the city, and we were introduced to them by our old friend Dr. Bleasdale, whose office is in the immediate neighborhood. Mr. Kohler, the senior partner, began the wine business here on a small scale in 1856, and from it has grown a very large trade, the firm having vineyards and cellars at Sonoma and Los Angeles, the latter of which I hope to visit. They deal principally in wines and brandies of their own manufacture, and, having vineyards both north and south, can supply every kind of wine wanted. This cellar is itself evidence of the way in which the business has grown, as room after room has been added until after a time another and more extensive cellar had to be found, and now it is far larger than the old one, which, however, appears to be affectionately retained, and most of the bottling is done in it.

The firm have all their export casks made at the vineyards and sent up to the city filled with wines or brandies, and when emptied the wine casks are drained and sulphured but not washed. In these cellars they have a number of redwood vats of 2,600 gallons, costing only \$65 set up in the cellar. They are only two-inch staves and rather lightly hooped for their size. In the office are some beautifully executed colored pictures of some of the best known grapes cultivated in California. They were published in this city, but are now out of print and none to be had. The new cellar of the firm is at the corner of Sutter and Dupont streets, more in the centre of the city, and is all below ground. It covers about 100 x 150 feet, and is filled very closely with rows of oval oak casks of 1,500 gallons each, except one or two rows of very old 500 or 600 gallon ones, imported from Germany by Mr. Kohler, and are ornamented with carving in the old style, and named after large cities as Rome, Florence, Venice, &c. There is room in this cellar for from 300,000 to 400,000 gallons.

We tasted here some of the best light-red wines we met with in any cellar in the city. The Zinfandel gave us more satisfaction than any, being very similar to our own clarets, and not so thin and wiry as many of the red wines we have sampled. We took a few bottles with us for use on the overland journey, and in crossing the Colorado Desert, with the thermometer at 110° in the shade, we found that, mixed with the ice-water, always to be had in the cars, it gave us the best drink we could get, and we shall always think of Kohler's claret, and hope he may rest in heaven for making such good wine to help us through this fiery ordeal. In the absence of Mr. Kohler sen., who was away to a Vine Congress at Los Angeles, we were very courteously shown everything by his two sons, who, I should say, will be worthy successors of the old pioneer, their father.

A NEW WINE PRESS.

The present season sees the establishment in California of a new wine press, "Le Merveilleux." It is a French invention, and has been used with success for several seasons in the wine districts of France and Germany, as shown by the testimonials held by the agents in this city. The special claims for this wine press, the price of which is very reasonable, are:

First. By an ingenious mechanical application, the "power of resistance" can be reduced to a minimum, and with a single effort three or four times more power can be obtained than with any other press known at this day.

Second. It does the work more rapidly, and with less labor.

Third. It is cheaper than any other first class wine press in the market.

Fourth. It has no complicated devices, is so extremely simple in construction and easily operated, that a child of ten years can work it.

Fifth. It is made of the best materials, and by its simplicity not liable to get out of order.

Sixth. All parts are interchangeable, consequently any part lost or injured can be replaced at little expense.

Seventh. It will extract the largest percentage of liquid.

Further particulars will be found in another part of this paper, or can be obtained from the agent, A. Paré, at 51 Beale street, San Francisco.

EXPERIENCE IN PREVENTION OF GRAPE ROT.

Paper read before the New Jersey State Horticultural Society, by Alex. W. Pearson.]

Mr. President and Members of the Society: Two years ago, at our meeting in Camden, when discussing "What can we do to prevent Grape Rot?" I expressed the opinion that under favoring conditions we may mitigate damage from the grape disease by destroying or suppressing as many as possible of its infecting germs.

I also stated that I had tried removal from the vines of the infected grapes, and had found this beneficial.

Results encourage me to continue attempts at disinfection, making them more thorough.

Observing that the rot spores hibernated in the rotted grapes and other decidua of the vineyard, that they rise thence by their own buoyancy to infect the fruit on the trellis, and noticing also that frequent stirring of the soil liberated and distributed these spores, I resolved, in 1884, to take advantage of these facts and endeavor to suppress, as far as I could, the life and activity of the *Phoma*.

As late in the Spring as I could defer it, before growth began, I raked from the vineyard everything collectable, with ordinary hay rakes. From each side of the trellis I threw a furrow; the deposits beneath the trellis were then raked into these furrows with fine-toothed rakes. The furrows were thrown back, covering this diseased matter and the middles between the rows were ploughed, burying everything carefully. During the Summer the soil was left undisturbed, and infected grapes were picked from the clusters, taken from the vineyard and destroyed.

For the sake of comparison, portions of my vineyard were left without this disinfectant treatment.

At maturing of the crop I was glad to find that what I had done for its preservation was preservative. I was yet more pleased to see that my measures of disinfection had not been taken with sufficient care.

Having more vines than I could attend, personally, I had to trust to hired assistance; they, not realizing that a job of this sort to be well done must be done well, were careless. When raking the deposits from beneath the vines they left some here and there and the rakes used were not sufficiently fine to scrape off all the berries shrivelled by the rot. Where numbers of these remained on the ground I noticed there was most rot on the fruit above.

The next year, 1885, I pursued the same plan of treatment of my vineyards, but for the rakes I substituted hoes, and scraped all of the top soil beneath the vines off into the furrows. I followed the scrapers, making sure that none of the diseased remains of the previous crop had been left uncovered. When rot appeared in July I sent pickers frequently along the rows, to remove the rotting berries from the clusters, gathering also such as had fallen. All this diseased product was taken from the vineyard and cremated. The soil was left all Summer undisturbed, after the first ploughing.

The result of these attempts at disinfection was a full crop of nearly perfect clusters. The labor of grape trimming—that is, clearing the rotten grapes from the bunches, was practically done away with. We had but to cut the clusters from the vines and pack them in the baskets. The only fault

of the vintage was that many of my vines carried more fruit than they could mature under the prevailing drought.

Various farmers in the neighborhood of Vineland have similarly treated their vineyards; perhaps not quite so thoroughly. They report a corresponding improvement in the health of their vines. No one, however, so far as I can learn, has adopted my plan of picking the infected grapes from the vines. To do this is important. The disease germs are spread from the rotting grapes during Summer. As the perithecia of the *Phoma* mature they burst, disseminating their contents of spores. These cause the continuously renewed attacks of rot throughout the season.

This current propagation of infection can be best met by capturing the infected berries whence it starts, and as supplemental to the measures of wholesale suppression adopted, it is profitable.

When it is remembered that these damaged grapes must be clipped from the ripe clusters anyhow, to fit the fruit for market or for wine, it will be seen that the labor requisite for this may be expended just as economically while the fruit is on the trellis as after it is harvested. In fact, we are paid for the work thus performed in two ways. We diminish the final expense of "grape trimming," while suppressing the initial sources of renewed infection.

I once regarded the commencement of rot, in its season, and the recurrence of its attacks, as only consequent on the occurrence of rain.

Drought is evidently inimical to the fungus, and warmth and moisture favor its development and infectious energy; yet I have this year had proof that the appearance of the epidemic is not absolutely dependent upon the actual precipitation of atmospheric humidity.

In Southern New Jersey, through April, May, June, and a part of July, drought was intense. Showers of rain were merely spatters, few and far between, and were followed usually by a temperature too low for development of the *Phoma*. Under these conditions vineyards in Vineland remained apparently healthy.

On Tuesday, July 7th, my vines and those in the vicinity were sprinkled by a light shower. The weather was hot. On Friday, July 10th, came another dash of rain, lasting ten minutes. For two months previous to these dates my hygrometer had shown no perceptible sign of the presence of moisture in the air. Everything was "dry as punk," and the promise of a healthy grape crop was good.

On Saturday afternoon, July 11th, I found the first rot in my vineyard. The next morning several of my neighbors reported having just found rot on their vines.

I learned that these two showers of rain had extended but half a mile south of my farm, so I resolved to avail myself of this chance to study the relation between rain and the *Phoma*.

July 13th, A. M., I visited a vineyard a mile south of my place. I found the soil there parched and dusty. There had been no rain for nearly four weeks. Yet the rot had appeared there, as with me, on July 11th.

And so through the whole range of vineyards inspected. Everywhere the symptoms of grape rot had manifested themselves simultaneously.

Perhaps the moisture actually precipitated in my vicinity extended its influence elsewhere hygrometrically. I had no

means of ascertaining this, and my observations as to the prime cause of this unanimous debut of the epidemic leave the question still in doubt.

Other observations, however, made during this excursion were quite instructive.

In the region where drought was persistent I found vineyards, where to extirpate a noxious weed, culture through June and July has been almost continuous. The vines were on stakes, and twice a week the cultivator has passed each way through them, stirring up the dust, and with it the spores of the *Phoma*.

All the rotten grapes of the previous Summer (when these vineyards rotted badly) were on or in the soil, and the teeth of the cultivator routed them up effectually, liberating the infectious germs.

Rot first struck the vineyards, as it did the others, on July 11th and 12th; but when it struck it left its mark. This first invasion of the *Phoma* destroyed three-fourths of a large crop. On July 13th, three days after the first appearance of the disease, there were no grapes worth harvesting left upon the vines.

Half a mile distant from these unfortunates stood a vineyard where the disinfection which I have indicated has been practiced for three years. It was loaded with fine fruit, through which we hunted long before we could find a rotted grape. That vineyard carried its crop safely to maturity.

I am not so sanguine as to suppose that these attempts at a suppression of the grape rot, which I have found so satisfactory, will be invariably successful. Isolation of the vineyard, where such protection is attempted, is important; or, at least it is essential that adjacent vineyards be similarly disinfected.

My vineyard is comparatively isolated. My neighbors, disgusted with unsuccessful viticulture, have extirpated their vines.

To reach me, the *Phoma* spores grown by others must travel through the air. They will so travel, and the stretch of their migration will depend upon favorable atmospheric conditions. If one has careless neighbors, who permit all of their parasitic nuisances to develop; and if coincident heat, humidity and winds favor such development, and spread the infection abroad, it will be next to impossible to contend successfully against the grape rot, or the pear blight, or the thistle, or the potato bug.

Once, in Vineland, during a spell of hot and humid weather, when the grape rot seemed to have all conditions in its favor, its infection pervaded the atmosphere. I proved this by removing from the paper bags which had protected the clusters of ripe white grapes, exposing them subsequently anywhere; for example, out upon a roof, at the expiration of two days they showed the speck of the *Phoma*.

At such times, the preventive methods which I suggest can of course be but partially efficient; nevertheless while it is certain that multitudes of the rot germs are carried from place to place by the winds, it is just as certain that myriads of them—the vast majority—rise from the debris of the vineyard's previous crop. Bury this, and you have disposed of the main column of the enemy.

The question is pertinent, whether the fungus spores buried this year will not be unburied by next year's ploughing, and then be destructive.

It seems not; for our disinfected vineyards continue to show the benefit of a previous year's treatment.

Investigating this fungus, microscopically, it will be seen that its live spores, placed between glass slides and subjected to warmth and moisture, germinate promptly. They most similarly respond to the same influences when imbedded in warm and moist earth. They doubtless germinate and then perish.

A great objection to non-cultivation is that it permits growth of weeds, and in time of drought this growth will injure that of the vine.

Probably a smoothing harrow run frequently through the vineyard, to keep the surface soil pulverized, will serve to discourage the weeds, yet will not greatly contribute to resurrection of the *Phoma*. I shall try it next year. But it will be well to avoid harrowing when the soil is so dry as to rise in dust.

An interesting problem connected with maladies of plants yet awaits solution. The problem is whether or not we can so fertilize or medicate the plant through its roots as to fortify it constitutionally against disease. There is reason to believe that we may do so. The varied vulnerability of varieties of the grape to the attack of rot and mildew proves constitutional resistance, and warrants the theory that we may artificially strengthen a weak constitution as readily as weaken a strong one.

The Ives Seedling grape, as we know it in Vineland, is exceptionally healthy. With me it has never rotted to any serious extent. Yet right in my vicinity I have seen a vineyard of Ives, growing upon a sandy knoll, so utterly starved that its fruit rotted almost totally. It was apparent that the plants there lacked some element of health which they usually obtain from the soil. What element? Doubtless one or other of the natural antiseptics: potash, lime or chlorine.

In Southern New Jersey rots and mildews are remarkably prevalent; and in the soil of that region potash and lime are remarkably deficient. Where I have applied these elements in sufficient quantity to the entire root system of plants, I have found after sufficient lapse of time that these plants and their products were manifestly healthier.

I believe now, that if twenty years ago every acre of Vineland's vineyards had been dressed with, say a ton of bone dust, half a ton of potash, two hundred bushels hydrate of lime, and fifty bushels of salt, and if all our viticulturists had been as careful as this year I was to squelch as much as possible all the manifestations of *Phoma Utricola*, damage by this fungus would be quite insignificant.

I purposed also in this paper some discussion of that other special friend of the vine, *peronospora viticola*, or grape-leaf mildew; and to instance observations which lead me to suppose that it will be found greatly amenable to prophylactic treatment, but my remarks have already outgrown reasonable limits.

For forty years I have been more or less interested in grape culture. During the last ten years I have been most seriously concerned in experience of these destructive epidemics which make success in grape culture so uncertain. It might be supposed that in such a space of time one would have learned something positive and definite concerning the subject. Much, however, is yet in doubt, only to be decided by varied and exhaustive experiments. Even the theories seemingly authorized by the observations detailed in this paper, may be erroneous.



ISSUED FORTNIGHTLY ON FRIDAY MORNING BY

E. C. HUGHES & Co., Proprietors.

CHARLES R. BECKLAND, Editor.

Office, 511 Sansome Street. Postoffice Box, 2396

TERMS PAYABLE IN ADVANCE.

One copy one year \$5.00

One copy six months 1.75

Including city delivery, United States, or Canadian Postage

Entered at the Postoffice as second class matter.

AGENTS.

ANAHEIM, California, J. A. CARRIE
CLOVERDALE, Sonoma Co., J. A. CARRIE
DIXON, Solano Co., J. A. CARRIE
DUNCAN'S MILLS, Sonoma Co., J. A. CARRIE
FRESNO, California, H. C. WARE, Jr.
GOLDEN RULE, Fresno
GEYSERVILLE, Sonoma Co., D. LEPTO
HEALDSBURG, Sonoma Co., A. BALTZELL
LIVERMORE, Alameda Co., GEO. BECK
MAXWELL, Colusa Co., M. NATHAN
SANTA ANA, California, R. F. CHITTON
SAN JOSE, Santa Clara Co., E. B. LEWIS
SANTA ROSA, California, C. A. WRIGHT
STOCKTON, California, W. H. ROBINSON
WINSTON, Sonoma Co., LINDSAY & WELCH
WOODLAND, Yolo Co., E. BERG
HONOLULU, Hawaii, J. M. OAT, Jr. & Co.

FRIDAY AUGUST 13, 1886

Recognition

Our friends in the Fresno Viticultural and Horticultural Association recognize the value of a journal like the MERCHANT guarding and advancing their interests, and give effect to their good wishes in a very practical way, as will be seen by the following resolution:

Official.

"FRESNO, CAL., April 5, 1884. 4.
"Proprietor S. F. MERCHANT, Dear Sir: Below is a copy of the minutes of the last meeting of the Fresno Viticultural and Horticultural Society that is of interest to yourself.

Resolved—That this Association recognize the SAN FRANCISCO MERCHANT as one of the best organs of the Viticultural and Horticultural interests in the State, an exponent of their views and able advocate of their interests, and moreover as a paper which has taken more than ordinary interest in the prosperity of Fresno county. We agree to give the publisher our liberal support while that journal pursues the course for which it has hitherto been distinguished.

Moreover, we suggest that manufacturers and dealers in agricultural implements and other useful articles who wish to call our attention to their goods, and us and other Viticulturists in maintaining the SAN FRANCISCO MERCHANT on a sound footing, by giving it a large share of their advertising patronage.

Be it further resolved that the Fresno Viticultural and Horticultural Society tender its thanks to the SAN FRANCISCO MERCHANT for past favors.

C. F. RIGGS, SECRETARY.

Australian Oranges.

Australian oranges have been delivered in London in sound condition, and found a ready sale at from \$2.20 to \$2.50 per half-box. The fruit was shipped as ordinary "storage," had been packed two months and was found of good quality, size and color. Each half-box contained about 80 oranges, so that the average price of each orange was about three cents when sold at auction. This is more than double the price of the fruit when sold by the case in Sydney.

The New York Wine and Fruit Grower, commenting upon an article which appeared in a previous number of the MERCHANT, containing the following: "Mr. Polonski is also to be congratulated upon having at his disposition the handling of such wines as those of Mr. H. W. Crabb of Oakville," says: "We would suggest to Mr. Crabb to duplicate his efforts in New York city. We have seen his wines and can say that they are the best handled and most completely finished wines we have seen in the Eastern market, and some of his new varieties compare well with fine imported brands."

The Milk Tree.

That curious and useful tree named by Humboldt *gabotodendrum utile*, by modern botanists classed among the family of the Artocarpaceae, by the Venezuelans *arbol vica* and *arbol de la leche*, simply meaning cow or milk tree, which is one of the beneficial products in tropical countries, is said to be capable of being propagated in latitudes of less intense heat. It may be surmised that for certain portions of California the acclimatization of the milk tree would be profitable. Our Agricultural College may have made its trials and can give more information about these suppositions. A few indications as given by a botanist of Spain, who strongly urges the propagation of the tree in provinces of the old Kingdom, which have many analogies with portions of California, may be of interest to our readers.

The tree abounds in the forests of Venezuela up to several thousand feet elevation and seems to thrive best in a temperature of from 75° to 80° F. The leaves are of an oblong shape and their abundance gives an agreeable aspect to the tree which attains ordinarily a height of from 50 to 90 feet. The trunk is proportionate to its height. The roots are very numerous, crossing and interlacing each other. Heat and moisture are the elements for prosperity of the tree; but it vegetates in deep soil having moisture in its subsoil even if not fertile nor hot. The liquid exuding from slits made is white, slightly viscous, and in its taste similar to cow's milk, but it is denser than the latter and less sweet. One grown up tree can provide a whole family with the necessary milk, if practising the incisions frequently. The life of the tree is a short one, seventy years being the limit. The quantity of juice emitted during that period is incalculable.

Exposed to the air the milk coagulates soon, forming a blackish mass containing greasy matter, which dissolves at 100° of heat. It resembles beeswax and is employed for candle-making. The resemblance of the juice of the milk tree with cow's milk is not absolute, for the former contains more cream substance than the latter, and besides an azolate of fibrine and albumine substance. The natives of Venezuela make good wax of the tree's milk. Likewise, submitting the latter to fermentation, an alcoholic liquor is obtained. The wood is fibrous and strong. Undoubtedly industrial advantages, besides its nutritive qualities, may be derived from the tree which it would be worth introducing in California.

Champagne Manufacture.

Baron Babel's *Weinbauhe* contains in the issue of July 1 an explanation by E. Musitzky of the principles of Champagne production. Valuable information is given about the differences between natural Champagne which improves by storage and keeps its sparkling properties, and artificially made Champagne having a carbonic acid gas admixture. Mr. Musitzky has invented an improved apparatus which, according to his assertion, combines the two methods of Champagne production. He claims the best results from his invention and, doing justice to the methods of Roussau, Janney, Marnet and Carpentier, maintains having reached to some degree at least the virtues of natural Champagne in the product through his apparatus.

Subscribe for the MERCHANT.

THE TWIN EVILS.

A Catechism on Intemperance and Tobacco.

In a little waste-basket pamphlet adorned on the last page with the bank advertisement of R. H. McDonald, is the usual announcement of "Vinegar Bitters," the alleged only remedy for dyspepsia. It is not worth while to take notice of the trash emanating from diseased brains of water-abusers, but a few of the questions and replies for Sunday school use may be reproduced, in order to see with what obnoxious and contradictory explanations the rising generation is poisoned. It will appear evident to any man gifted with common sense from such samples of the doctrines common to the prohibitionists, that it is not only unsafe, but a crime to allow instruction of youth on the topic of temperance to be entrusted to such people who have in their ranks smart business people who utilize their opportunity for propagating their fabrications of drugs, cheekily asserted to cure the disease common with dietetic ignoramuses.

The advertising catechism begins with the following:

1. Q.—What is temperance?

A.—Moderation in all things.

No fault can be found with these notes, but it would be desirable that the prohibitionists could include their own way of thinking in this rule.

2. Q.—What does it mean when applied to temperance people and societies?

A.—Wholly abstaining from the use of all intoxicating drinks and harmful drugs.

If moderation means total abstaining, then contradictions are simple things and logic seems to be absent when such people to whom moderation, as stated, is applied, stoop to arguing.

6. Q.—What is the chief result of fermentation?

A.—To destroy food properties and to produce hurtful ones.

Science and practice differ from the experience of the original compounder of Vinegar Bitters. If his concoction has, as its name implies, vinegar in it, then he condemns his invention, for vinegar is produced by acetic fermentation. Alcoholic drinks having been explained by the bright author of the Catechism as being made by brewing, fermentation and distillation, he asserts that wines, ale, beer, porter and cider are first brewed, then fermented.

11. Q.—Are all alcoholic drinks poisonous?

A.—They are in all cases more or less poisonous or intoxicating which is really the same thing.

Dyspepsia. After explaining causes and symptoms, Treatment. Eat simple food, rice, milk, corn starch, oatmeal, brown bread, with a moderate quantity of meat. Eat slowly and at regular periods, chew your food well. Aside from this, you need but one remedy, and that is *Vinegar Bitters*. (This is the gist of the pamphlet.) It is a clever dodge thus to make it popular. But you might as well ascertain first from men as high in morals as yourself, if your vaunted remedy is really the only one. A hundred thousand medical men in grape growing and rational wine consuming countries will tell you the truth, which you fail to tell, that pure fermented grape juice which thus far has not its nourishing qualities destroyed by fermentation, is in its true temperance sense, that is moderate

use at the table, one of the grandest blessings of Providence, not only to cure a dyspeptic constitution, but to prevent that evil from befalling you.

The First Inn.

The following tale is translated from Dr. Bersch's Wine Journal as told by E. Brunck: In the times of Queen Margareth, famed for creating the Union of Calmar, as far back as the 14th Century, it was customary for lords, knights and free-men on their travels to quarter themselves with their followers on villages and farmers and stay as long as the victuals of their unwilling hosts lasted. Defenceless against the armed guests, the peasants had to resign themselves to satisfy the exactions. Many a curse followed the departing guests; many a cry was uttered throughout the land, and at last was heard by the Queen.

One day a pretty country-lass wished to speak to the ruling lady. Queen Margareth ordered that the young girl should be admitted to her presence and asked what was her desire. With tears the girl gave the information that her father, farmer Skolhild, formerly well to do, would soon be a beggar, as a number of nobles with their armed retainers were constantly holding high revels at the farm, thus consuming her father's substance and getting him into debt to such a degree that he could not satisfy his creditors. Just now, the girl concluded, a host of nobles are revelling at my father's house.

The Queen inquired for all particulars and dismissed the girl with the words: "You have not in vain asked for justice. This day it will be done."

Ordering a troop of soldiers to follow her, the Queen went out to the farm of Skolhild. In a forest, near the farm, the soldiers remained hidden and the Queen alone entered the farm house. The assembled knights received the Queen with reverence. Utter astonishment at the unexpected visit was expressed on the visages of the Knights.

"Truly, you are well entertained here," the Queen said. "Skolhild seems to know how to treat his noble guests well. Therefore we order Skolhild henceforth to give entertainment to every one. But every one shall pay him for it. You are his debtors, for you have not paid him anything for years. Now everyone of you shall pay him a hundred silver marks damages and twenty marks more that he may build an inn. Besides, that you may not lack entertainment wherever you travel, I have sent heralds all through the land to proclaim my order for the institution of inns."

The gentlemen were puzzled and ventured protestations, but seeing the Queen firm, prepared for departure. "Stop!" the Queen commanded, "you remain and obey first!" The appearance of the soldiers of the Queen gave force to her words. The nobles submitted. One of them was sent for the money and the others remained as hostages. Skolhild was enabled to pay his debts and his inn was remunerative henceforth. Thus in the whole northern lands inns became the rule where people for pay found shelter and food. The Queen's command for the protection of these institutions was that for forced hospitality, such as the nobles had been practising for ages, tenfold the value of the entertainment was to be the fine.

The attention of wine makers out of employment is called to Dr. Stillman's advertisement, which they might find it to their advantage to answer.

MR. WETMORE'S RETURN.

Mr. Charles A. Wetmore, Chief Executive Officer of the State Viticultural Commission of California, returned yesterday from Washington. Since Mr. Wetmore's departure he has successfully established a National Viticultural Association, the first meeting of which was held in Washington. He has been recognized as the leader of the viticultural industries in the United States by his unanimous election as President of the National Association. This is no slight honor and we in California should feel proud of the compliment that was paid to our representative and which he so thoroughly deserved.

In the matter of the Wine Bills before Congress, Mr. Wetmore has also done much for our cause. It is true that they have not become law, but the Sweet Wine bill passed the Senate which is more than can be said of 90 per cent of the other measures presented for legislation. Moreover, there are good prospects for its future success. In other respects the importance of the industry has been prominently placed before the whole country. It has been proclaimed as a national industry and one that ranks in the foremost place among our other industries. We claim, and are now in a position to claim, legislation for the furtherance of our cause and for our protection. It seems strange that protection should be needed in an honest business from our fellow-citizens. But such is the case. The honest wine maker has to compete with the dishonest. His pure products have to be placed in competition with cheap adulterations and vile concoctions that are manufactured at half the price of the genuine article. If the honest man cannot obtain the protection by law that he should be able to claim from his country, then he must stoop to the deceptions and swindling methods of the fraud with whom he has to compete, or else go out of the business.

So far legislative protection has been denied the honest wine makers of this country, but their claims and demands for protection have made themselves heard throughout the length and breadth of the land with no uncertain sound. And this is almost entirely due to the individual efforts of Mr. Wetmore who has labored unceasingly, day and night, for many months, in the interests of the viticultural industries of America. He has achieved a degree of success that few men could reach because there are but few men who have the power, inclination or adaptability for the work that he has. He had a good and just cause to work for and he has done the best he possibly could for that cause. He has by no means come back to us defeated; the end he is working for will be attained before long, and, in the meantime, he deserves and is fully entitled to receive commendation at the hands of all Californians, besides a much needed rest from his work. Our political representatives at Washington have rendered good service in our wine fight, but the brunt of the battle has fallen upon Mr. Wetmore almost single-handed. Let us all with one accord thank him cordially for his efforts in the past and wish him every success in his efforts in the future; We can do more than this; we can all assist him by using our individual influence in one direction or another so as to lighten the coming struggle, and thus, in a slight manner, prove to him that his work through the difficulties encountered is fully appreciated.

OUR HAWAIIAN TRADE.

The export movement from San Francisco to the Hawaiian Islands, as shown by the figures for July, supplied by Consul-General D. A. McKinley, continues to maintain the average of trade for the present year. The lumber shipments from the Sounds also make a good showing, with prospects of a continuance for the present month, as four vessels are now loading lumber there. The total for July was slightly less than that for the previous month, yet it exceeded by \$9,000, what is considered the general average of \$250,000 a month. As is usual the bulk of the shipments were goods from the United States, that are admitted free in accordance with the terms of the Reciprocity Treaty. The exports for July were as follows:

	Value.
Admitted free by Treaty	\$193,236.76
Free by Treaty	61,612.80
Free by Consular Collection	4,102.90

Total \$258,952.46

The quantity of lumber shipped from the Sounds exceeded 1,500,000 feet and was valued at \$15,058.28. In this connection it may be interesting to note the prospects of steam communication being established between Port Townsend and Honolulu. This, it is considered in some quarters, will shortly be accomplished when the Northern Pacific Railroad completes the Cascade Division to Tacoma, and when the Union Pacific extends a branch from Portland to Port Townsend. This would enable direct shipments of hat, oats, barley, wheat and potatoes from the north at possibly cheaper rates than they can be shipped from San Francisco to Honolulu, by the saving of the extra freights to this City. If such a condition of affairs be brought about, it will prove of great benefit to Port Townsend and the neighboring districts, but will as surely be another blow at the commerce of San Francisco as the main distributing center on the Pacific Coast.

THE WINE BILLS.

We have received the telegraphic news conveying the latest information as to the fate of the wine bills. While regretting that they have not become law we can only hope for the best in the future, and we should not relax our efforts to ensure success.

Taking advantage of the presence in this city of Hon. William McKinley, Jr., a member of Congress from Ohio, we asked his opinion as to the prospect of the wine bills in which the Californian people are so much interested.

Mr. McKinley said that the Sweet Wine Bill had passed the Senate, and he was inclined to think that it would pass the House at the next Session of Congress. "Your people on the ground," said Mr. McKinley "were very active and intelligent in their efforts to secure the passage of the Green Bill, as well as the Sweet Wine Bill. The former, in my judgment, is not so likely to pass as the latter, and its passage will be met with some opposition in the House. What the result will be I cannot predict. The passage of the Oleomargarine bill, however, would indicate a disposition on the part of Congress to suppress frauds in manufacture, and compel every product to sail under its own flag."

It will be seen from Mr. McKinley's remarks, that there is evidently some powerful opposition to the Green bill against the manufacture of Spurious Wines. The profits resulting from the manufacture and sales of these adulterations, are probably so enormous that those interested will not relinquish their opposition without a very hard struggle. But the better men having been successful against frauds, the wine men have now a precedent established upon which to work and to base their own just claims.

"BRING ANOTHER LABEL"

Mark Twain, in his "Tramp Abroad," describes an occurrence that is life-like in its resemblance to the adaptability of so-called California wine houses in filling the demands of their customers.

He said "Mr. X had ordered the dinner and, when the wine came on, he picked up a bottle, glanced at the label, and then turned to the grave, the melancholy, the sepulchral head waiter, and said it was not the sort of wine he had asked for. The head waiter picked up the bottle, cast his undertaker-eye on it, and said: 'It is true; I beg pardon.' Then he turned on his subordinate and calmly said, 'Bring another label.'"

"At the same time he slid the present label off with his hand and laid it aside; it had been newly put on, its paste was still wet. When the new label came, he put it on; our French wine being now turned into German wine, according to desire, the head waiter went blandly about his other duties, as if the working of this sort of miracle was a common and easy thing to him."

"Mr. X said he had not known before that there were people honest enough to do this miracle in public, but he was aware that thousands upon thousands of labels were imported into America from Europe every year to enable dealers to furnish to their customers, in a quiet and inexpensive way, all the different kinds of foreign wines they might require."

The only difference between the European waiter, described by Mark Twain, and our American bottlers is, that the latter are not so honest as the former and will not "bring another label" before the eyes of the consumers. It is the sly deception practised in this country that tends to injure the California genuine wine business. If our frauds were as honest as the above described fraud there would be less difficulty in nailing the cheats and making the punishment fit the crime.

Early Bearing Seedlings.

The procedure of Monsieur Salamon of Thonery, to bring seedlings rapidly into bearing is, according to the Italian wine journal, simply this: The grape seeds are put in a flat vessel in which good earth is mixed with concentrated manure. This vessel is to be placed in a hot-bed or hot-house, having light through glass windows admitted and the temperature is to be kept for 8 days at 60°, thereafter it is to be raised to 70° and gradually to 85°. When the plants form the third leaf, they are put into small vessels of 8 centimetres and continued to be cultivated at the same temperature. Three weeks later put the plants into larger pots. When the plants reach a height of 2 feet, prune them. Prune them again when they are 6 to 8 feet high. The third year these vines fruit.

The Austrian Consul at St. Gallen, reported the following figures as those of the imports of wines into Switzerland in 1884:

From—	Hectolitres.
France	266,923
Italy	139,472
Austria-Hungary	83,339
Germany	54,913
Spain	13,114
Portugal	1,395
Other Countries	1,650
	551,006

Or 14,556,000 gallons. This quantity for consumption, additional to the home crop in Switzerland, is surprising in so small a nation as the Swiss.

GRAPES AT SANTA ANA.

Editor MERCHANT:—Our vineyards early in the season gave promise of a large and fine crop. We have had no blight, mildew or insect pests. Most varieties are still healthy and will give a fair yield. Muscats around Santa Ana, Tustin and Orange are specially fine. Of wine grapes all are doing well except the Mission, but Mission form so large a part of our vineyards, that this exception is a matter of importance. Maturo, Grenache and Carignan, grafted on old stocks in 1885 are bearing heavily. Malvasias are healthy and well set with fruit which is already ripening. But its tendency to rot and its poor quality make it a grape not to be desired.

The Mission is commencing to die out. Many vines that started well this spring and set an abundant crop have dried up. The leaves have a sickly look, the canes have ceased to grow, and the grapes at the size of bird shot or peas have withered. The vines thus affected are not in any particular locality in the vineyard, but scattered all through, here and there one or perhaps two in a place. Distance of planting age of the vines, soil, cultivation or pruning seem to make no difference. Vines planted at 6 feet or 8 feet, 3 years old or 15 years old, those well or badly cultivated on sand, gravel, loam or clay are all the same. The average of Mission vines thus affected is probably 5 per cent. A few went the same road last year but not enough to create alarm. The conclusion of vineyardists is that this grape is slowly but surely dying out. The writer has within a few days examined a great number of vineyards in this vicinity and found the same state of things in all. Malvasia, Burger, Muscat, Sultan and Franken all right, perfectly healthy, but the Mission invariably as above described. No one can explain the cause of this decadence. The roots have been examined and are apparently all right. Besides, at the 1st of May of this year, I went over 5 acres of Mission vines and found a great number that had not started. These I cut off 4 inches below the surface and grafted them to Grenache. These have made a fine growth and are among my most thrifty grafts. Say, Mr. Editor, is it good or bad viticulture to use the Mission stock for grafting, knowing what we do of its diseased condition?

In January last, I procured from Drummond of Glen Ellen, cuttings of Gros Manchin, St. Macaire and Tannat. These I grafted on 5-year-old Malvasia, and nearly every one lived and has made an enormous growth. My neighbor Mr. McClay, who by the way is a subscriber to the MERCHANT, and an excellent vineyardist and wine maker, procured from Crabb of Oakville, cuttings of Pinot, Chairette Blanche, Tannat and Cabernet Sauvignon, which he planted as cuttings to the number of about 500, nearly every one of which has grown, making a perfectly even and thrifty stand of plants.

So, Mr. Editor, you see that we, away down here in this dark corner, intend to have some of the choice wine stocks of Napa and Sonoma; and when Providence in its inscrutable ways shall see fit to remove from our midst the last vestige of the old Mission vine, we will have a better wine wherewith to treat our friends and ourselves. The men who take and read the MERCHANT are the pioneers of viticultural improvement.

B. H. TWOMBLY,

A VISIT TO SAN JOSE.

The second annual exhibit of the fruit and vine products of Santa Clara County opened on August 9th, under very promising circumstances. It was well attended, in fact crowded, the music and evening entertainments being of a very high order. The Building, (a new structure erected expressly for this purpose,) was handsomely decorated. One piece, a G. A. R. badge, 12 by 7 ft., was made of colored panpas grass, with the exception of the eagle which was of natural colored grass from the Santa Cruz mountains. By a very skillful manner of using the lighter and darker grasses, for the purpose of shading, the eagle looked so lifelike that the observer was almost surprised that it did not suddenly fly off with the stars and stripes, which it held in its talons. By its side was a shield, eight by five feet, on which were stripes of black velvet, containing the names of every State and Territory in the Union; the lettering and border, (an endless chain of links,) was made of the corn-tassel, and was a very artistic piece of work.

Ceres was portrayed by a young lady riding in a chariot, covered with nearly 130 different kinds of grain seeds; in the center of the car was a cornstalk 13 ft. high, and surrounded by sheaves of barley, oats, wheat and other cereals.

The goddess Flora, was seen as a figure standing upon a floral pedestal, resting upon a carpet of roses. The height of this work was about 20 ft.

A miniature clipper ship, with her decks heaped with grapes and fruits, about to sail out of the Golden Gate, represented Pomona.

The fruit exhibited was of good quality, and considering the earliness of the season, it makes an excellent representative display. Among the many who deserve special mention, we noticed the following: Mr. Wm. Beauchamp, Moorpark apricot, 8 inches in circumference; Mr. A. M. Ogan showed an ear of corn 14 inches in length; Mr. B. Griswold, very large pears and apples. The oranges and lemons, from A. J. Fowler of Evergreen, are of fine quality. He also exhibited some blackberries, which averaged 14 inches long, and we learned that he has also been very successful with his almonds. Other exhibits will be noticed later.

We are pleased to acknowledge the courteous treatment we received at the St. James Hotel, during our visit to San Jose. It is a very neat and well kept house, provided with every possible comfort and luxury. The proprietor, Mr. Tyler Beach, personally superintends, and visitors will, at all times, find him a very kind and obliging host.

The State Viticultural Commission has received a valuable pamphlet entitled "The Olive and its Products," by Lewis A. Bernays, F. L. S., Vice-President of the Queensland Acclimatization Society of Australia. The book is a treatise on the habits cultivation and propagation of the tree, and upon the manufacture of oil and other products therefrom.

THE PAUL O. BURNS WINERY.

The Paul O. Burns Wine Co's. winery at San Jose, was visited by a representative of the MERCHANT, and Mr. Paul O. Burns himself kindly devoted some of his time to showing us "over the place." The winery is situated on the corner of 7th and William streets, and is easy of access, over very good roads from the business portion of San Jose. The still, one of the largest and finest in the State, is capable of distilling 600 gallons in 12 hours, and was erected at a cost of over \$1,000. In the cellars there are 200,000 gallons of wine stored. Sixteen new casks of a capacity each of 2,500 gallons will be added to the cellar shortly. The bottling department is very systematically arranged and well conducted. The cleaning, filling and corking machines are of the most improved pattern, and are very ingenious devices. There is a force of 25 men employed at the winery, and 5 travelers, and with the present prospect it will not be long before the company will have to increase the number as they are barely able to keep up with their orders. During our visit they were just finishing an order for two car loads to be delivered in Chicago.

The case wine in the office presents a handsome appearance from its bottles. A very good way to prevent the wine being tampered with was noticed in the mode of preparing the bottles for sale, by placing a netting of wire over the cork and soldering it at the bottom, thus rendering it impossible to open the bottle without breaking the wire. Among the many good wines were specially noticed some very fine samples of old Port, Sherry, Burgundy, Angelica and Brandy made exclusively from the best foreign varieties of grapes. Their blackberry brandy also is very good, and is made from pure blackberry juice.

Our Vineyards Abroad.

The Viticultural Commissions has received from M. Chas. Joly, the Vice President of the Horticultural Society of France, a pamphlet containing several views of Californian vineyards. These views were taken by Mr. Taber of this city, and were sent to Mr. Joly, who has reproduced them in his pamphlet, together with a short description of each view. Accompanying the pamphlet was the following letter:

Paris, July 14, 1886.

Dear Sir:—I beg to send you a few copies of the notes I made out with some of the photographs, which you have been kind enough to send me. I take this occasion to thank you again for many favors.

C. Joly,

To President Harszthy, State Viticultural Commission, California.

Mr. T. D. Cone, agent for the Yaryan's vacuum distillation apparatus, was in the city this week. He has lately put up a substantial building near Sacramento and will commence condensing grape must at the end of this month. Mr. Cone expects next year to put up several machines in different parts of the State. The grapes that he will use this year will come from the Natoma Vineyard.

Senator Stanford has sent to the German Land and Cattle Co. a quantity of seeds for distribution, which will be sent, free of charge, to any one applying for them. Address German Land and Cattle Co., 123 California street, San Francisco, Cal.

In the Santa Clara Valley there are 1,000 acres of land devoted to the production of garden seeds for the Eastern market.

The attention of Wine-Growers, and all others interested, is called to the powerful

WINE PRESS

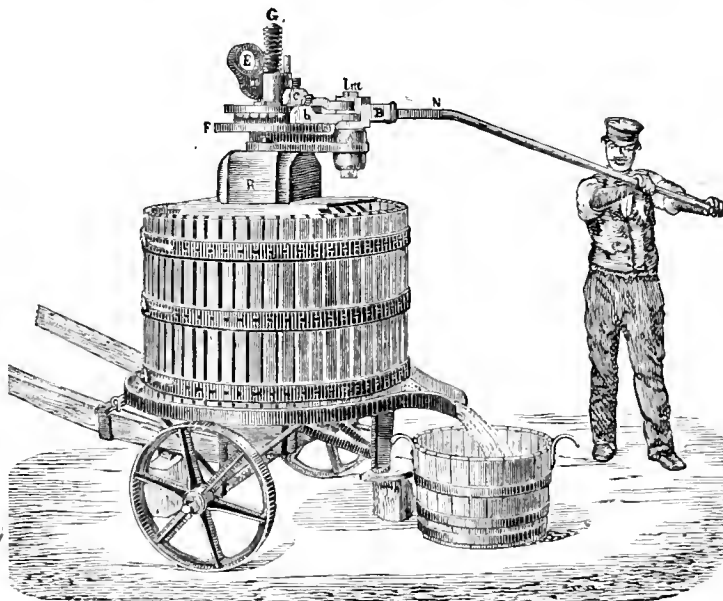
'LE MERVEILLEUX'

THE CHEAPEST IN THE MARKET.

A French invention, and now for the first time introduced in the United States. This press is patented in France, Belgium, Germany, England, Italy, Norway, Sweden, Denmark and the United States.

Price List at San Francisco.

No.	Diameter of Screw, Inches.	Upper Extracted at One Turning, Galls.	Height of Basket, Inches.	Diameter of Basket, Inches.	Press, 4 Complete, With 2 Wheels.
1	2 1/2	100	24	32	\$ 95 00
2	2 3/4	125	26	40	140 00
3	3 1/2	200	28	48	190 00
4	3 3/4	300	32	58	260 00
5	3 1/2	450	35 1/2	63	325 00
6	4 1/2	600	35 1/2	74	400 00
7	4 3/4	800	39	78	475 00



WINE AND FRUIT PRESS.

Having secured the entire right for the United States, we take pleasure in introducing this Wine Press to the American public, believing it superior to any other press now in use.

It will be to the advantage of Wine Manufacturers to study carefully the following merits, which we claim it possesses:

First—By an ingenious mechanical application, the "power of resistance" can be reduced to a minimum, and with a single effort three or four times more power can be obtained than with any other press known at this day.

Second—It does the work more rapidly, and with less labor.

Third—It is cheaper than any other first-class wine press in the market.

Fourth—It has no complicated devices, is so extremely simple in construction and easily operated, that a child of ten years can work it.

Fifth—It is made of the best materials, and by its simplicity not liable to get out of order.

Sixth—All parts are interchangeable, consequently any part lost or injured can be replaced at little expense.

Seventh—It will extract the largest percentage of liquid.

Eighth—It is built on the ratchet principle and the lever can be worked in a six-foot space.

This press is not an experiment, having been used several seasons in the wine districts of France and Germany, as will be seen from the testimonials attached to the circular.

After trial the Press may be returned to us if for any reasonable cause not satisfactory, as we are satisfied from our experience that parties that have once used them will not afterwards do without them.

For any further information apply to

BRANCH OFFICE,
71 Monroe Building,
201 DEARBORN STREET,
CHICAGO, ILL.

A. PARE,
Care of F. W. KROCH & CO.,
Manufacturers of Windmills, Tanks, Etc.,
51 Beale Street, San Francisco, Cal.

PARE BROTHERS
SOLE AGENTS FOR THE UNITED STATES,
Fresno, Cal.

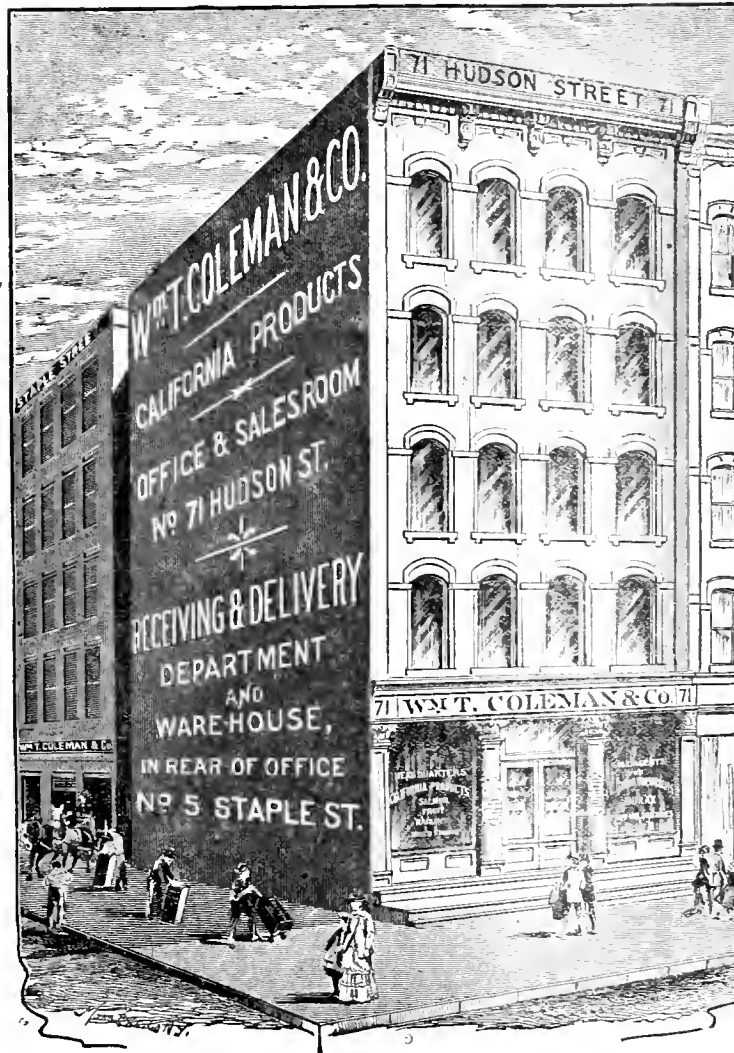
N. B.—The Press can be seen in operation at Factory of Kroch & Co. above named where orders will be received.

CALIFORNIA WINES AND BRANDIES.

San Francisco,
121 Market Street.

Astoria, Oregon,
Flavel's Wharf.

Chicago, Ill.
91 Michigan Avenue.



New York,
71 Hudson Street.

London,
4 Bishopsgate St..
within E. C.

Liverpool,
54 Drury Buildings.

WM. T. COLEMAN & CO.

71 HUDSON STREET

NEW YORK CITY.

ALSO AGENTS FOR
ALCOHOL WINE AND SPIRITS.

Water and Toothpicks.

There is always some crank or fool or worse at hand to heap ridicule on this Nation whenever contact with notions of civilized ways of living is the subject. In looking at the State that sent Senator Blair to fight for the interests of his section, I find New Hampshire named. This may explain the pennywise policy of the Senator ingratiating him to the backwood-water fanatics, whereby, as his stupid motion has found willing buyers of eyes in the Senate, certainly the grand foolish result of criticism of *Amoskegon* now wind dress has been reached. No cent to be spent for any liquid stronger than water, and instead of a cigar give your guests a toothpick, this was what the arch-enemy of a glass of wine (in public) requested of the legislators in relation to the Burnside celebration. Poor Senator Blair—a Frenchman chiefly, but really every man educated in the ways of refined and hygienic nutrition considers your dinner with ice-water or coffee or milk a *paupers* dinner, and he will rather allow you to preserve your dyspepsia thereby, and content himself with a piece of bread and cheese and have his glass or two of light claret, for without the medium of the latter he despised your fare, which smacks too much of the times when our great grandfathers began keeping house in the new world. Even the wisest of the gray heads in the Senate has something to learn. Before everything to live like a gentleman, and next set the cranks who disgrace the name of the nation of prohibition the example of knowing the truth. Mr. Blair knows it. Can he stand up and say that he always despised a glass of good wine? Nay, we fear distilled drinks do not frighten him, although he better let them alone.

Yours, L.

CALIFORNIA Concentrated GRAPE MUSTS

FOR THE SEASON OF 1886 I WILL CONCENTRATE must of grapes from the celebrated Natomia Vineyard,

THOS. D. CONE,

Manufacturer of California Concentrated Grape Musts

OFFICE—640 CLAY ST., (Up stairs),

San Francisco, Cal.

Works at Homestead, near Sacramento, Cal.

WINE MEN!

TAKE NOTICE!

ST. HELENA, July 8, 1886.

I have on hand at my Cellar at Bello Station, 2 1-2 miles south of St. Helena, 15,000 Gallons of White Wine, the vintage of 1884, Riesling, Chasselas and Burger; also, 35,000 gallons Riesling, Chasselas, Burger and Zinfandel Claret of 1885, which I offer for sale cheap to make room for this year's vintage.

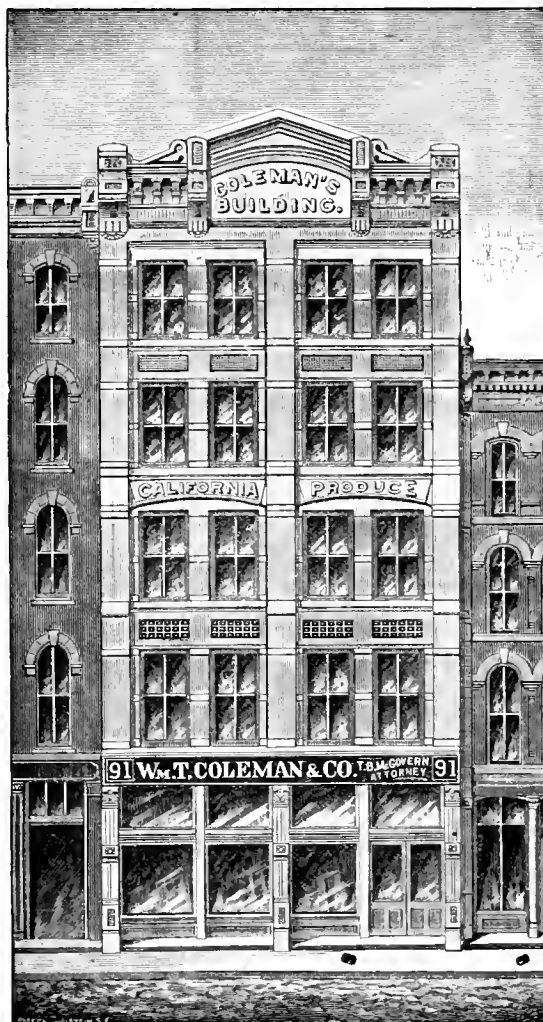
J. H. McCord.

AGENCY OF

WM. T. COLEMAN & CO.

91 MICHIGAN AVENUE, CHICAGO.

California Products a Specialty.



California

Canned

Fruits,

California

Dried

Fruits,

California

Raisins.

California

Wines,

California

Oranges

COLUMBIA AND SACRAMENTO RIVER SALMON,

—AND ALL—

Pacific Coast Products Suited to Eastern Trade.

CONSIGNMENTS SOLICITED, AND ALL CORRESPONDENCE

PROMPTLY ATTENDED TO.

T. B. McGOVERN, Manager.

ARTICLE XI.

TIME AND PLACE OF MEETING.

The regular meetings of this Association shall be held at the city of San Francisco, on the first Tuesday of January and March, and the third Tuesday of June and August, at 11 o'clock A. M., at such place as the Board of Directors may designate.

ARTICLE XII.

NOTICE OF MEETINGS.

Notice of meetings of the Association shall be given by the Secretary by publication in some daily paper of the city of San Francisco, a week before the meeting. Notice of the meetings of the Board of Directors shall be given, by mail, addressed to each Director at his Post Office address. In case the Board of Directors fail to designate a place of meeting the President shall do so. The Secretary shall also send notices of meetings of the Association to the members by postal card.

ARTICLE XIII.

FUNDS.

The moneys of the Association shall be divided into General and Special Funds. Receipts from dues shall constitute the General Fund, which shall be applied to the general expenses of the Association, and, after paying them, to such other objects as the Directors shall from time to time order. Special funds shall consist of such sums as may be contributed by members or others for any specific object approved by the Directors. They shall be kept distinct by the Treasurer, and applied under the orders of the Board only to the specific purposes for which they may have been contributed.

ARTICLE XIV.

AMENDMENT OF THE BY-LAWS.

These By-laws may be amended at any regular meeting of the Association, by a vote of two-thirds of the members present, provided that the proposed amendment shall have been offered in writing at a previous regular meeting, the proposed amendment to be sent to each member with the notice of the meeting.

The next regular meeting of the Grape Growers' and Wine Makers' Association will be held on Tuesday, August 17th, at 11 A. M., at the offices of the State Viticultural Commission. The Directors will meet at 9 A. M., on the same day. There are now 200 members of the Association, and, for the information of those who have not yet joined, we publish the By-laws in this issue.

FAILURE OF THE SPURIOUS WINE BILL.

[N. Y. Wine and Fruit Grower.]

It appears that the bill taxing spurious wines will go over to the next session of Congress. This will be a great disappointment to the true friends of the vineyard interests, who have worked so long and ardently to secure its passage, but will not check their efforts or dampen their faith in final success. It is needless to enumerate here what the causes have been that have stood in the way; the chief one has been the "political exigencies" of the politicians in Congress (and party managers out of it), whose selfish interests have made moral cowards of them to the extent that sooner than provoke a debate on a great question which will compel them to "go on the record," they let the material interests of the country go to the dogs. Two great Statesmen in the House rise in their places, and when one says "Reduce the tariff," the other answers, "No you don't; knock out your internal revenue and leave tariff alone; and if you bring in a bill I'll amend it to death"; the other replies, "You kill my bill and I'll serve yours the same sauce." In the Senate a great Statesman (politician?) swings the gavel and says: "Sh—, we don't want anything that may bring on debate." So between these wise and far-seeing chess-players, we seem to have "got left," as it were. All grape-growers are called upon to witness the fact of this neglect of their interests by their representatives, and that such neglect is deliberate, and in the face of full information as to the extent of the injury and disgrace inflicted upon American vineyard interests by the trade in domestic bogus wines and brandies. And the general public is called upon to witness the neglect of their representatives to afford needful protection against injury to public health from poisonous and unwholesome beverages.

Now, friends, what shall be done with the unfaithful servants? In a few months some of them will be begging your suffrages; then it will be your inning. We advise every grape-grower who believes in or hopes for the future success of American viticulture, to be sure of the attitude of his Congressional candidate on this subject. It should not be said of Congress next Winter that it is so inflated with the great questions of "public policy," that it has no time to look after matters of public health and domestic industries; neither must it be said that the friends and agents of the bogus wine interest in Congress are more able and

numerous than the friends of honest vineyard products.

We will say now, in advance, to the "commercial freebooters" who are disgracing and poisoning and disgusting the public with their foul "doctors' stuff," that they must keep out of this fight; they must keep hands off. If they do not, their wines shall be examined and analyzed, and the country shall ring with the exposition of their basely fraud, and the whole world shall know who the rascals are and the exact nature of their imposition and humbug. Our markets shall be preserved for honest American wines, and the scoundrels who have heretofore fostered their poison-wash and cherry juice, made to have wine's upon it with impunity, are warned that they have six months' grace in which to close up their business and escape the penitentiary which is yawning for them already. The grape-growers of the country are now organized, and they will go before Congress at its next session as an organized force; those who stand in the way will be ground very fine. The impudent scoundrels who think from their experience this past Winter that they are to have indefinite control of the market, will get a scourging that they little dream of, their "names are on the list," and we shall call the roll when the time comes to apply the lash.

PAUL O. BURNS WINE CO.

Proprietors

YERBA BUENA VINEYARD.

DISTILLERS OF GRAPE BRANDY.

Fine old Mountain, Burgundy, Zinfandel, Riesling, Gutedel, etc., in cases or bulk.

Branch Cellars in San Jose, Cal., U. S. A. P. O. San Jose, Cal.

WM. T. COLEMAN & Co., SAN FRANCISCO,
Sole Agents for Chicago and New York.

WINE MAKER

WANTED.

A Theoretical and Practical Wine Maker is wanted by

J. D. B. STILLMAN

—OF—

LUGONIA,

SAN BERNARDINO CO.

The applicant must send references as to character and qualifications of well-known vinticulturists, to whom letters of enquiry may be addressed.

CALIFORNIA VINEYARDS.

KRUG CHARLES.

Krug Station, St. Helena, Napa Co., Cal.
Producer of fine Wines and Brandies.

J. C. WEINBERGER, Manufacturer of Wines, near St. Helena.

H. W. CRABB, Wine Cellar and Distillery, Oakville, Napa County.

SAN FRANCISCO WINERY, RUEFF & REH,
Business Proprietors, 116 1/2 Eighth St., S. F., Cal.

THE CUPERTINO VITICULTURAL SOCIETY

Meets on the evening of the third Thursday of each month at Mr. Montgomery's.

J. C. MERTHEW, President

J. D. WILLIAMS, Vice President

R. C. STILLER, Secretary

Please address all communications to R. C. STILLER,
Gibbsville, Santa Clara Co., Cal.

ESTABLISHED IN 1860.

ALL WINE MAKERS

Should drink the

PURE BELMONT

— HAND-MADE —

SOUR MASH WHISKY.

Supplied in lots to suit by

JAMES CIBB, 617 Merchant St.

HERRMANN & CO.,
HOP MERCHANTS.

Importers and Dealers in

CORKS, BREWERS' AND BOTTLEERS SUPPLIES,
SODA WATER AND WINE DEALERS' MATERIALS.

ALEX. FRIES' & BROS. COGNAC OILS,
ESSENCES AND FLAVORS.

331 SACRAMENTO ST. San Francisco.

THE RISDON

IRON AND LOCOMOTIVE WORKS.

Cor. Beale & Howard Sts., S. F.

W. H. TAYLOR, Pres't. JOSEPH MOORE, Supt.

BUILDERS OF STEAM MACHINERY

IN ALL ITS BRANCHES.

Steamboat, Steamship, Land Engines
and BOILERS, High Pressure or Compound.

STEAM VESSELS of all kinds built complete, with
Hulls of Wood, Iron or Composite.
STEAM BOILERS. Particular attention given to the
quality of the material and workmanship, and none
but first-class work produced.

SUGAR MILLS AND SUGAR-MAKING MACHINERY

made after the most approved plans. Also, all
Boiler Iron Work connected therewith.
PUMPS. Direct Acting Pumps, for irrigation or City
Water Works purposes, built with the celebrated
Pavy Valve Motion, superior to any other Pump.

BOX

BRANDS
A
SPECIALTY.

BRUSHES

—AND—

All Kinds of

INKS

FOR SALE.

2nd Country Orders
Promptly Filled.



Graham Paper Co.

OF ST. LOUIS.

W. G. Richardson

PACIFIC COAST MANAGER,

No. 529 Commercial St.,

SAN FRANCISCO, - - - CALIFORNIA

TELEPHONE No. 1064.

OUR NATIVE WINE SHIPMENTS BY SEA.

PER P. M. S. S. CO'S STEAMER WILMINGTON, JULY 28, 1886.

TO CENTRAL AMERICA.

MARKS	SHIPPERS.	PACKAGES AND CONTENTS.	GALLONS	VALUE
J L, La Libertad.	M Elerman & Co	3 kegs Wine.	30	\$22
J W & Co, San Jose de Guadalupe	Hellman Bros & Co.	13 packages Whiskey.		208
S & Co, San Jose de Guatemala	Schwartz Bros	7 packages Whiskey.	60	98
B E, La Libertad	J F Schluken	2 barrels Claret	20	11
"	"	1 keg Sherry	10	12
A V, La Libertad	"	2 octaves Brandy	40	77
Total amount of Wine			120	\$121
Total amount of Brandy			10	77
Total amount of Whiskey, 20 packages				306

MISCELLANEOUS SHIPMENTS.

DESTINATION.	VESSEL.	RIG.	GALLONS.	VALUE
Scotland	British General	Ship	33	\$27
England	"	Ship	4000	2000
Victoria	Malaga	Steamer	1023	\$87
Auckland	Mamel	Steamer	42	19
Papeete	City of Papeete	Barkentine	50	28
Marquesas	"	Barkentine	5	4
Scotland	Garfield	Ship	41	65
London	"	Ship	65	75
China	City of New York	Steamer	73	95
Japan	"	Steamer	412	236
Bangkok	"	Steamer	100	51
Total			5,814	\$3,411

TO NEW YORK—PER STEAMER GRANADA, JULY 31.

A M.	S Regensburger	1 barrel Wine.	48	\$28
A V Co	Walter, Schilling & Co	120 barrels Wine	5,884	2,353
A Smith	"	2 barrels Wine	68	51
R & Co	"	10 barrels Wine	477	286
Total amount of Wine			6,501	\$2,736

TO CENTRAL AMERICA.

F M, Acapulco	Herman Bros & Co	5 kegs Claret	75	\$56
A A, Acapulco	Urruela & Urrutia	3 kegs Wine	30	25
No marks	"	25 packages Wine	326	220
D S, Acapulco	Wellman, Peck & Co	12 half barrels Brandy.	51	128
"	"	3 barrels Wine.	81	67
"	"	1 keg Wine.	10	8
"	"	2 cases Wine	5	7
"	"	2 cases Brandy	5	15
Total amount of Wine, 25 packages and			527	\$1,193
Total amount of Brandy			59	143

TO MEXICO.

S P, Mazatlan	W Loiza	11 keg Wine.	21	\$12
---------------	---------	--------------	----	------

TO NEW YORK—PER STEAMER SAN JUAN, AUGUST 8.

P, in diamond, New York	Kohler & Van Bergen	6 barrels Wine	291	\$160
H Bros, New York	Walter, Schilling & Co	1 barrel Wine	43	43
Total amount of Wine			334	\$203

TO CENTRAL AMERICA.

G C R, San Jose de Guadalupe	Pa-Improvement Co	19 cases Wine	45	\$61
J A P, La Libertad	Urruela & Urrutia	18 cases Wine	80	62
Total amount of Wine			135	\$123

MISCELLANEOUS SHIPMENTS.

DESTINATION.	VESSEL.	RIG.	GALLONS.	VALUE.
Honolulu	Wawalea	Steamer	70	\$35
Victoria	Queen of the Pacific	Steamer	1,446	792
Mexico	New York	Steamer	1,093	648
Honolulu	Zalanda	Steamer	1,353	1,373
Havre	Apolito	Bark.	144	72
China	City of Peking	Steamer	92	65
Japan	"	Steamer	120	400
Total			4,358	\$3,355
Total shipments by Panama steamers			7,617 gallons	\$4,388
Total shipments by other sea routes			11,462 "	7,099
Grand totals			19,109	\$11,487

J. N. KNOWLES, MANAGER

EDWIN L. GRIFFITH, SECRETARY

ARCTIC OIL WORKS.

MANUFACTURERS OF

Sperm Whale, Elephant and Fish Oils, Skid Grease,

WHALE OIL SOAP.

ESPECIALLY ADAPTED FOR VINEYARDS AND FRUIT ORCHARDS.

OFFICE—25 CALIFORNIA STREET, S. F., Cal.

BY-LAWS

OF THE

GRAPE GROWERS'

AND

Wine Makers' Association

OF CALIFORNIA,

WITH

NAMES OF OFFICERS AND MEMBERS.

1886.

OFFICERS:

President	H. W. McIntyre,
	Rutherford, Napa Co., Cal.
1st Vice-President	W. McPherson Hill,
	Sonoma, Sonoma Co., Cal.
2d Vice-President	F. T. Eison,
	Fresno, Fresno Co., Cal.
3d Vice-President	J. C. Merithew,
	Cupertino, Santa Clara Co., Cal.
4th Vice-President	Dr. J. D. B. Stillman,
	Lugonia, San Bernardino Co., Cal.
5th Vice-President	E. W. Maslin,
	Sacramento, Sacramento Co., Cal.
Secretary	E. H. Rixford
	San Mateo Co., Cal. Office, San Francisco
Treasurer	Chas. Kohler,
	San Francisco, Cal.

DIRECTORS:

J. F. Black	Livermore,
	Alameda Co., Cal.
Chas. E. Shillaber	Cordelia,
	Solano Co., Cal.
D. C. Feeley	Patchin,
	Santa Clara Co., Cal.
J. F. Crank	Pasadena,
	Los Angeles Co., Cal.
Maurice Keatinge	Lower Lake,
	Lake Co., Cal.
E. C. Priber	S. Helena,
	Napa Co., Cal.

ARTICLE I.

NAME.

This Association shall be called the "Grape Growers' and Wine Makers' Association of California."

ARTICLE II.

OBJECTS.

Its object shall be to promote the science and practice of viticulture in all its branches and interests.

ARTICLE III.

MEMBERS.

Any person interested in any of the objects of the Association may become a member, by signing the roll of members and paying to the Secretary for the use of the Association, the sum of One Dollar, which shall discharge his dues up to the 31st of March, thence next ensuing. Annual dues of One Dollar, payable on or before the 31st of March, in each year, shall be paid by each member.

ARTICLE IV.

OFFICERS.

The elective officers of this Association shall consist of a President, five Vice-Presidents, a Secretary, a Treasurer, and a Board of seven Directors, of whom the President shall be one, and a majority of whom shall constitute a quorum. These officers shall be elected annually to serve

one year, or until their successors qualify. The Presidents of local viticultural societies throughout the State are *ex-officio* honorary Vice-Presidents of this Society.

ARTICLE V.

DUTIES OF OFFICERS.

The President shall preside at all meetings of the Association and appoint committees whose appointment is not otherwise ordered. He shall call a special meeting of the Association whenever it seems to him desirable, or at the written request of five members. The President is *ex-officio* a member of the Board of Directors. A Vice-President shall take the place of the President during his absence. The Secretary shall keep a correct account of the proceedings of all meetings of the Association, and also of the Board of Directors. He shall receive all moneys paid in, receipt for the same, and pay them over to the Treasurer. He shall attest all papers executed by the Association, and attend to the correspondence. The Treasurer shall receive from the Secretary all moneys collected by him, and pay them out only in accordance with the provisions of these By-laws. He shall report receipts and disbursements at the close of each meeting, and shall make a full statement of accounts at each annual meeting. The Board of Directors shall be the general managers of the Association. They shall have charge of its property; they shall examine and audit its accounts, and order bills paid; they shall elect their own presiding officer, shall hold at least quarterly meetings in the City of San Francisco, and shall have charge of all exhibitions and publications of the Association. They shall take the most efficient means in their power for the collection of all dues. The Directors shall collect and publish to the members of the Association, all statistical information of interest to them, including a Directory of Vine Growers and Wine Makers in this State, as complete as can be made, acreage planted in vines, age and variety of vines planted, prospects of crops, and range and prospect of prices.

ARTICLE VI.

ELECTION OF OFFICERS.

The annual meeting and election of officers shall be held on the first Tuesday of March, and the election shall be by ballot. Vacancies shall be filled by election by the Board of Directors.

ARTICLE VII.

DUES.

Any member failing to pay his dues by the 31st of March ceases thereby to be a member, and his name shall be stricken from the roll.

ARTICLE VIII.

COMMITTEES.

Standing and special Committees shall be appointed upon such subjects as may be deemed advisable.

ARTICLE IX.

DEBT LIMITATION.

The Board of Directors shall not be allowed at any time to incur a debt of over \$500 without a two-thirds vote of the Society at a regular meeting.

ARTICLE X.

QUORUM.

Ten voting members of this Society, present at any regular meeting, shall constitute a quorum for the transaction of business.

(Concluded on Page 139.)

KRUG'S CROP.

(St. Helena Star.)

W. B. Bourn has leased a portion of the Krug cellar and will manufacture wine on the premises the coming season. Mrs. Charles Krug took possession on August first, and will make considerable wine, having secured tankage for 100,000 gallons. From \$20 to \$22 per ton for Zinfandel and for Chasselas, Rieslings and Sauvignon vert \$25 per ton are considered fair prices. Berger not below \$20 and finer varieties such as Carignan, Cabernet, Sauvignon, Malbec, etc., between \$25 and \$40 per ton. Missions will command the lowest price of any grape, and Malvoisie, although counted as an inferior grape, will, by proper management and introduction, bring a high price as table fruit. The owners of Malvoisie vines will find this to their advantage as no finer table grape is raised, and the tonnage price is usually much larger for table than wine grapes. No damage from heat at Krug's; a few vines show the presence of black measles. In this vineyard can be seen Rieslings that will produce from 10 to 12 tons per acre. In place of the ordinary stake for these vines, two wires have been stretched horizontally from post to post and the vines allowed to run along the wires, having only a space of 7 feet one way between the vines and forming a solid wall of foliage and fruit along the wire. As a result the grape is protected from the sun's rays and the yield is marvelous, the bunches are large, and in many cases, on the horizontal limbs, extend the entire length of wood, forming a solid and continuous chain of grapes. No person without ocular proof can realize the tremendous advantage of this system, and only a visit to Krug's can in any way convince one that such a yield as 10 or 12 tons is possible. Go and see for yourself.

WANTED.

A FIRST-CLASS WINE MAKER OF 15 YEARS' experience wishes a position in a large wine cellar. Thoroughly understands distillation and setting the machinery connected therewith. Address "Wine Maker," MERCHANT OFFICE.

HARD TIMES MADE EASY.

Are you using Wellington's Improved Egg Food for Poultry? If not, why not?

EXCELSIOR HOT WATER INCUBATOR.

No lamp. No oil. No expense to run. No watching. Best in the world.

EGG TESTER. Testing six at a time. Quicker and better than one by any other process.

Seeds of Every Variety.

B. F. WELLINGTON,

425 WASHINGTON ST., San Francisco, Cal.

BOSTON BELTING CO.

GOOD HOSE A SPECIALTY.

J. W. CIRVIN & CO.,

24 CALIFORNIA STREET, S. F.

MECHANICS' INSTITUTE FAIR.
TWENTY-FIRST EXPOSITION!

SAN FRANCISCO.

Opens August 24th. Closes September 25th, in their Immense Pavilion

ON LARKIN STREET.

With a Grand Display of Natural and Manufactured Products of the Pacific Coast, including a magnificent collection of Oil and Water Color Paintings, Art Works, Photography, Machinery in operation, a Special Floral Exhibit each week, the finest display of Fruits, Grains and Vegetables ever before presented to the people, and a Grand Instrumental Concert, day and evening.

Prices of Admission:

Double Season Ticket \$5 00
Single Season Ticket 3 00
Adult's Single Admission 25
Children's Single Admission 10

Members of the Institute entitled to Season Tickets at half rates.

Full information given or sent on application to the Assistant Secretary, 31 Post street.

W. P. STOUT, Sec'y. P. B. CORNWALL, Pres't.
J. H. GILMORE, Supt. J. H. CULVER, Asst. Sec'y.

T. & M. E. Tobin & Co.,

PRODUCERS OF PURE

CALIFORNIA WINES & BRANDIES.

Cor. Stockton & O'Farrell Sts.,

San Francisco, Cal.

BUY THE

HOWE SCALE.

D. N. & C. A. HAWLEY,

AGENTS, San Francisco.



ARE YOU USING

WELLINGTON'S

IMPROVED EGG FOOD

For Poultry?

IF NOT, WHY NOT?

EVERY GROCER, DRUGGIST AND MERCHANT SELLS THIS EGG FOOD

FRAZER AXLE GREASE

BEST IN THE WORLD

Its wearing qualities are unsurpassed, actually outlasting two boxes of any other brand. Free from Animal Oils. GET THE GENUINE.

FOR SALE BY
CALIFORNIA MERCHANTS
and Dealers generally.



A. 1876 S. I. XII.

L. S. 1888 G.

The Industrious never Sink.

CROSSE & GARDNER,
BROKERS IN REAL ESTATE.

Ranches, Residence, Business and Manufacturing Property Bought and Sold on Commission.
And Publishers of "Sonoma County Land Register and Santa Rosa Business Directory."

OFFICE, No. 312 B St., SANTA ROSA, CAL.

E. L. G. STEELE & CO.,

Successors to

C. ADOLPHE LOW & CO.,
COMMISSION MERCHANTS.

Agents American Sugar Refinery and Washington Salmon Cannery.

L. LANDSBERGER.

HENRY M. LANDSBERGER.

Landsberger & Son,

Commission

Merchants,

123 CALIFORNIA STREET.

SAN FRANCISCO.

Agents for the Purchase and Sale of Viticultural Products and Vintners' Supplies.

To Wine and Brandy Makers.

Wanted a party who thoroughly understands making and handling wines and brandies and can furnish from \$1,000 to \$2,000 to purchase for himself the neighbors' grapes at from \$10 to \$15 per ton, to join the undersigned who controls a large granite cellar fully stocked with cooperage and utensils, located in Placer County, California. The applicant would be required to make the wines and brandies from the grapes grown on the ranch of the owners for the privilege of making up the grapes of his own purchase and use of cooperage, utensils, etc. To the right kind of a man a chance is here offered to engage in a permanent money making business with a small outlay of capital. Address immediately,

Thad S. Fitch,

LINCOLN, Placer County, Cal.

E. C. HUGHES PRINTER

511 Sansome St., S. F.

THE

WINE & FRUIT GROWER.

B. F. CLAYTON,

EDITOR AND PUBLISHER.

21 PARK PLACE, NEW YORK.

SUBSCRIPTION TERMS:

(Payable in advance.)

ONE YEAR (Free of Postage) \$1 00
SIX MONTHS 50
SINGLE COPIES 10
EUROPEAN COUNTRIES 1 50

Subscriptions and advertisements received at the office of the "Merchant."

CHOICE

OLD WHISKIES

PURE AND UNADULTERATED.

We offer for sale on Favorable Terms to the Trade,

CATHERWOOD'S

Celebrated Fine Old Whiskies,

OF THE FOLLOWING BRANDS, NAMELY.

"CRANSTON CABINET"
"A.A.A." "CENTURY"
"OLD STOCK"
"HENRY BULL"
"DOUBLE B"
"MONOGRAM"

VERY OLD AND CHOICE, IN CASES OF ONE DOZEN QUART BOTTLES EACH.

"BRUNSWICK CLUB" Pure Old Rye, And "UPPER TEN."

For Excellence, Purity and Evenness of Quality the above are unsurpassed by any Whiskies imported. The only objection ever made to them by the manipulating dealer being that they cannot be improved upon.

Dickson, De Wolf & Co.

SOLE AGENTS,

SAN FRANCISCO, CAL.

Challenge Wine Pump.
WITH BRASS LINED CYLINDER, OR ALL BRASS PUMP



The annexed cut represents our Horizontal Challenge Wine Pump of great compactness and power, for use in vineyards for pumping from one tank into another. The cylinders of our iron pumps are brass lined, the piston rod, valves and valve seats are brass. Our all-brass pumps are made entirely of brass with exception of the lever. Very suitable as a power wine pump.

Wine Tanks.

We manufacture our tanks of two inch First Quality Redwood Lumber, well seasoned, free from knots, with a hoop to every foot in height and guarantee them to be well made in every respect. Write for our special Catalogue of Wine Mills, Pumps of all description, Wine Hose, Garden Hose, Wine Cocks, etc. Mailed free upon application.

WOODIN & LITTLE,
509 and 511 Market Street, San Francisco.

GOODYEAR'S
"GOLD SEAL"
Rubber Hose

For Sale by All Dealers.



GOODYEAR RUBBER CO.

R. H. PEASE, JR., AGENTS.

S. M. RAYSON, AGENTS.

577 and 579 Market St., SAN FRANCISCO.

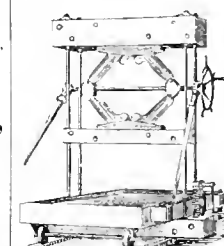
WORTH'S IMPROVED

PATENT

COMBINED TOGGLE LEVER

—AND—

SCREW PRESS.



I desire to call the attention of wine and Cider makers to my Improved Press. With this Press the movement of the follower is fast at the commencement of the turn, moving one and a half inches with one turn of the screw. The last turn of the screw moves the follower one-sixteenth of an inch. The follower has an up and down movement of 2 1/2 inches, with the double platform run on a railroad track. You can have two curls, by which you can fill one while the other is under the press, thereby doing double the amount of work at any other press in the market. Model on exhibition at the offices of the Board of State Viticultural Commissioners. Also manufacture Horse Powers for all purposes, Engine Cutters, Plum Pitters, Worth's System of Heating Dairies by hot water circulation. Send for circular.

W. H. WORTH,

Petaluma Foundry and Machine Works,

Petaluma, Sonoma Co., Cal.

Testimonials from I. DeTurk, Santa Rosa; J. B. J. Portal, San Jose; Ely T. Sheppard, Glen Ellen; Kate F. Warfield, Glen Ellen; J. H. Drummond, Glen Ellen; Joseph Walker, Windsor; John Hinkelman, Fulton; Wm. Puffer, Galesville; J. & F. Muller, Windsor; R. C. Stiller, Galesville; Lay Clark & Co., Santa Rosa; Vackey Freres, Old San Bernardino; J. F. Crank, William Allen, San Gabriel; James Finlayson, R. & J. J. Gold, Healdsburg; W. Metzger, Walter Phillips, Santa Rosa; J. Lawrence Watson, Glen Ellen; Geo. West, Stockton, can be had by applying for printed circulars.



How they Imprison Wine Adulterators in Germany.

[From Anti-Adulteration Journal.]

A wine merchant at Schweinfurt having sold as genuine wine a decoction in which tannic acid, glucose, glycerine, salicine, coriander, and other adulterants were found has been sent to prison for three months and fined 1,000 marks.

Why don't we punish the guilty in America as they do in Germany? Are not our health and life as dear as the Germans? Why must we labor so hard with so slow progress to secure adequate laws to suppress adulteration of food, drink and medicines? Why so much indifference in Congress? Mr. W. more says it is strange that some Representatives take no interest in suppressing spurious productions.

Perhaps there is more power to control in some constituents who manufacture spurious wine than in those who produce the pure. It may be the former have the sympathy of such indifferent representatives. Perhaps they do not realize they are indifferent when they neglect to urge the enactment of Anti-Adulteration laws. The fact that thousands of gallons of alleged fruit juices, consisting mainly of corroding spirits are imported with dye stuff to manufacture spurious wine, certainly makes the failure of a legislator to urge prevention appear not only indifferent, but in opposition to honest producers and the general consumers.

Now is the time for to pay your subscription dues.

OLIVE CULTURE.

[From the Napa Register.]

The man who will plant and properly care for ten acres of olive trees will lay the foundation of a fortune not only for himself, but for his children's children.

The longevity of the olive tree, its beauty and value, cannot be too highly prized. Our climate is undoubtedly adapted to its growth, if we may judge from other localities where the tree flourishes.

In fixing the cost of an olive plantation it must be remembered that soil can be utilized that from the protuberance of rocks, or other causes, is inaccessible to plow; that the trees require little cultivation; that their product is free from inconvenience that attend ordinary fruit; that the oil is an article that can be stored and become more valuable with age, and that over-production is out of the question, especially in a country whose population increases as in the United States, and consumers are rapidly growing in numbers. In Italy it is a maxim that the best olives are raised in localities subject to sea breezes and fogs.

Frank A. Kimball of San Diego county says: Cuttings well planted and well taken care of should bear fruit enough the fourth year to pay for cultivation. Many trees will bear the third year. I have helped pick eleven gallons of fruit from a four-

year-old tree. I think there is no other tree so tenacious of life as the olive, or which will respond to good cultivation with so valuable a crop on a given area.

Captain Guy E. Grosse of Santa Rosa says: Sixty trees planted five years ago in a very light sandy soil by Daniel Giovanni at Vine Hill View, eight miles west from Santa Rosa, are this year covered with berries. The tree is very hardy and it enabled me to utilize land unfit for almost any other purpose. There are thousands of acres of land on this coast of the same nature as my rocky patch, which can be bought at an almost nominal price. Planting the olive is laying the foundation for the future and ensuring profit for many generations. The tree, which begins bearing at five years old, will thrive for a thousand years. Therefore, while other fruit bearing trees must be renewed from time to time, the olive is a lasting investment.

It has been accepted as correct to say that the profit of the olive over the orange is one-half greater.

On a dry and stony cultivation that would starve out a thistle the olive tree luxuriates, and if the sea breezes may but fan the young shoots, so much more of promise is there for the olive harvest.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

R.H. McDonald, PRESIDENT.
R.H. McDonald Jr, VICE-PRES.
S.G. Murphy, CASHIER.
PACIFIC BANK
Oldest Chartered Commercial Bank on the Pacific Coast.
Capital \$1,000,000.00.
Surplus \$500,000.00.
San Francisco, Cal.

July 1st, 1886.

We respectfully invite attention to the statement herewith presented, and beg to say we are pleased with our achievements during the first half of the present year.

It is gratifying to us, also, to state that the results attained are satisfactory to our stockholders. We hope our success will receive the favorable regard of our patrons and friends whose business relations have enabled them to make so commendable an exhibit as the following:

ASSETS:

Bank Premises,	\$150,000 00
Other Real Estate,	35,556 27
Land Association, Gas and Bank Stocks,	31,304 65
Loans and Discounts,	2,378,383 15
Due from Banks,	339,502 11
Money on Hand,	491,805 78
Total,	\$3,416,551 96

LIABILITIES:

Capital, paid up,	\$1,000,000 00
Surplus Fund,	500,000 00
Undivided Profits,	23,318 71
Due Depositors,	1,741,973 35
Due Banks,	151,259 90
Total,	\$3,416,551 96

While returning thanks to our friends for the very liberal patronage during the past, a continuance of their favors is respectfully requested.

The regular semi-annual dividend has been declared and a balance of accumulation placed to account of undivided profits.

R. H. McDONALD, President.

SULPHUR! SULPHUR! SULPHUR!

FOR SALE IN

QUANTITIES TO SUIT.

WM. CLUFF & CO.,

WHOLESALE GROCERS,

16, 18, 20 and 22 Front St., Cor. Pine, S. F.

JOHN A. ROEBLING'S SONS CO.
WIRE ROPE
GALVANIZED SHIP RIGGING, MINING, TILLER, ELEVATOR, TINNED & COPPER ROPE, SASH CORDS. LARGEST WIRE ROPE WORKS IN THE WORLD.
IRON & STEEL WIRE OF EVERY KIND.
TELEGRAPH WIRE, HARD & SOFT COPPER WIRE, INSULATED FOR ELECTRIC USE, SWEDISH IRON WIRE, CRUCIBLE STEEL WIRE.
TRENTON, N. J. & 14 DRUM ST. SAN FRANCISCO, CAL.

THE AMERICAN SUGAR REFINERY COMPANY,
MANUFACTURERS OF THE
CELEBRATED CUBE SUGAR,

Supplies Only Exporters and the Jobbing Trade.

This Company manufactures all the Grades of HARD and COFFEE SUGARS and SYRUPS. Special attention given to the making and Packing of Loaf Sugar for Export.

208 CALIFORNIA STREET,

SAN FRANCISCO, CAL.

E. L. G. STEELE,
President.

Dr. MINTIE

THE SPECIALIST,

No. 11 KEARNY ST., San Francisco.

Treats all Chronic, Special and Private Diseases with Wonderful Success.

THE GREAT ENGLISH REMEDY



Is a never-failing cure for NERVOUS DEBILITY, EXHAUSTED VITALITY, SEMINAL WEAKNESS, SPERMATORRHOEA, LOST MANHOOD, PROSTRATION, IMPOTENCY, Paralysis and all the terrible effects of self abuse, youthful follies and excesses in many years, such as loss of Memory, Lassitude, Nocturnal Emissions, Aversion to Society, Dimness of Vision, Noises in the Head, excess in drinking intoxicating liquors, the vital fluid passing unobserved in the urine, and other diseases that lead to insanity and death.

Dr. Mintie WHO IS A Regular Physician Graduate of the University of Pennsylvania, who will agree to forfeit \$500 for a case of this kind the Vital Restorative, (under his special advice and treatment) will not cure, or for anything impure or injurious found in it. Dr. Mintie treats all PRIVATE DISEASES SUCCESSFULLY WITHOUT MERCURY. Consultation Free. Thorough examination and advice, including analysis of urine, \$5. Price of Vital Restorative, \$1.50 a bottle or four times the quantity, \$5; sent to any address upon receipt of price, or C. O. D., secure from observation, and in private name if desired, by Dr. A. L. Mintie, 11 Kearny street, San Francisco, Cal. Send for pamphlet and list of questions.

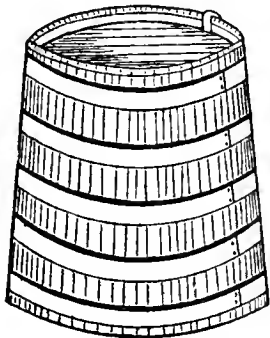
SAMPLE BOTTLE FREE.

Will be sent to any one applying by letter stating symptoms, sex and age. Strict Secrecy in regard to all business transactions.

DR. MINTIE'S KIDNEY REMEDY NEPHRETICUM, cures all kinds of Kidney and Bladder Complaints, Gonorrhoea, Gleet, Leucorrhoea, etc. For sale by all Druggists; \$1 a bottle, 6 bottles for \$5.

DR. MINTIE'S DANDELION PILLS are the best and cheapest DYSPEPSIA and BILIOUS cure in the market. For sale by all Druggists.

REDWOOD TANKS

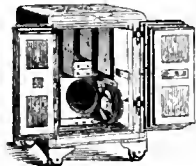


F. KORBEL & BROS.

727 BRYANT ST., S. F.,

Or at NORTH FORK MILL, Humboldt Co., Cal.

FIRE-PROOF SAFES ALL SIZES.



built to order.

CHAS. WALTZ,

11 Drumm Street, SAN FRANCISCO, CAL.

Write for prices and information.

RUPTURE RADICALLY CURED by Dr. Pierce's Great Discovery. Thousands of patients cured AT THEIR OWN HOMES. No Experiment! It does the Work! DR. PIERCE & SON, 704 Sac'to St., San Francisco, Cal.

THE COOS BAY STAVE & LUMBER CO.

— MANUFACTURERS OF ALL KINDS OF —

COOPERAGE GOODS!

Especially invite the attention of Wine Men to their unsurpassed facilities for supplying packages from a

5-GALLON KEG TO A 160-GALLON PIPE OR PUNCHEDY.

Our machinery enables us to execute all orders with promptness and economy. Price List on application.

OFFICE: 323 FRONT STREET,

WORKS BRANNAN ST., NEAR EIGHTH.

CLARIFYING AND PRESERVING WINES.

The undersigned having been appointed Sole Agents on the Pacific Coast by Messrs. A. BOAKE & CO., Stratford, Eng., for their renowned

LIQUID ALBUMENS,

Reg to call the attention of Wine Growers and Wine Merchants to the following articles, the superior merit of which has been confirmed by Silver Medals, the highest awards given at the International Exhibition of Paris 1878, Bordeaux 1882, and Amsterdam 1883, viz:



LIQUID ALBUMEN FOR RED WINES,

Claret, Burgundy and Port.



LIQUID ALBUMEN FOR WHITE WINES,

Sauternes, Sherry and Madeira, also for distilled liquors; Whisky, Gin, etc., etc.



WINE PRESERVER,

For Preserving the Brilliance of the wines.



WINE CORRECTOR,

For Correcting the Roughness of Young Wines.



WINE RESTORER,

For Restoring Badly Made or Badly Treated, Harsh and Tart Wines.

A trial according to directions will prove the superior qualities of these finings. For sale in quantities to suit by

CHARLES MEINECKE & CO., Sole Agents,

314 SACRAMENTO STREET, SAN FRANCISCO.

WM. T. COLEMAN & CO.,

Commission Merchants.

SAN FRANCISCO,

CHICAGO,

NEW YORK,

Agency WM. T. COLEMAN & CO.,

Agency WM. T. COLEMAN & CO.

ASTORIA, Or.,

LONDON.

With Agents and Brokers in every Commercial City of Prominence in the Union.

WE MAKE A SPECIALTY OF HANDLING THE

RAISIN CROP OF CALIFORNIA!

And amongst others we are Agents for

Riverside Fruit Company of Riverside, Miss Mary F. Austin of Fresno, McPherson Bros. of Orange, T. C. White of Fresno.

With many other of the Most Prominent Curers of this State.

Our Facilities for Promptly Placing and widely Distributing Their Produce Can be Ascertained from the Above well-known Curers.

We are also Large Handlers of

ORANGES, DRIED FRUITS, HONEY AND BEANS

IN THE EASTERN STATES.

Advances Made when Required, and Full Information of Markets Promptly Given. Address

Wm. T. COLEMAN & Co.

MARKET & MAIN STS., S. F.

"LE MERVEILLEUX"

— THE —

Most Powerful and Cheapest

Wine and Cider Press

YET PRODUCED.

Patented in France, England, Germany, Belgium, Italy, Norway, Sweden, Denmark and the United States.



This press (a French invention) has been used several years in the vineyards of France and Germany with great success, and is now introduced to the American public for the first time.

Its advantages are: Rapidity of action and illuminable power. With a single effort 3 or 4 times more power can be obtained than with any other press known at this day. It has also greater capacity than any other press in the market. The Press can be seen in operation, and is for sale, at the factory of F. W. KLOPP & CO., 51 Beute St., San Francisco, Cal.

PARE BROS.,

Sole Agents for United States,

Fresno, Cal.

Valuable Patent

FOR SALE.

The Claus Improved

GRAPE-VINE TRELLIS.

LATELY PATENTED, ATTRACTS GREAT ATTENTION among vintners everywhere as far surpassing any other form by efficiency and perfection. Generally acknowledged to be a meritorious invention and an unrivaled progress in viticulture, it will pay its application tenfold. It is truly a first-class acquisition.

RIGHTS OF THIS PATENT

FOR SALE BY

AMERICAN PATENT AGENCY,

188 & 190 WEST 5th ST,

Cincinnati, Ohio.

Full descriptive illustrations, costs, etc., given by me above and the inventor

C. H. TH. CLAUS,

Cor. Iowa & Keokuk Sts., St. Louis, Mo.

NOW READY.

THE

REPORT

OF THE

FOURTH ANNUAL

STATE

VITICULTURAL

CONVENTION.

PRICE, ONE DOLLAR.

OFFICE OF THE SAN FRANCISCO MERCHANT.

E. C. HUGHES & CO.,

Publishers,

511 Sansome Street,

THE SAN FRANCISCO MERCHANT.

THE ONLY VITICULTURAL PAPER IN THE STATE.

Devoted to Viticulture, Olive Culture, and other Productions, Manufactures and Commerce of the Pacific Coast.

VOL. XVI, NO. 10.

SAN FRANCISCO, AUGUST 27, 1886.

PRICE 15 CENTS

THE GRAPE GROWERS.

Mr. Wetmore Reviews His Work At Washington—The Growing Crop Items of Interest.

A meeting of the Grape Growers and Wine Makers Association of California, was held at the offices of the State Viticultural Commission on 17th inst. Among those present were: H. E. McIntyre, President; Charles Kohler, Treasurer; E. H. Rixford, Secretary; Charles A. Wetmore, Chief Executive Viticultural officer; Dr. J. D. B. Stillman, Captain Merithew, Professor Hilgard, Messrs. E. C. Priber, W. Rueff, J. H. Wheeler, E. W. Maslin, I. Landsberger, C. E. Shillaber, G. Hummann, Juan Gallejos, S. Brown, Crelling, J. T. Doyle, Grandjean, Hon. J. F. Black, E. J. Wickson, H. Webster, Dr. Hastings and C. R. Buckland.

The minutes of the previous meeting having been read and approved, Treasurer Charles Kohler made a financial statement which showed that he had received \$1720.35, and paid out \$1790.10, leaving a balance of \$69.75 due to the Treasurer.

President McIntyre said that the interest of the meeting was mainly centered in the work being done and that had been done at Washington. They would like to know the position in which they stood, so as to be in a position to judge of the advisability of going on with the work and meeting all the difficulties in the way of securing the legislation that was needed.

MR. CHARLES A. WETMORE

Said that he had not prepared any formal report of his seven months work, which would be presented to the State Commission. He was now in a position to realize better the future of the market, their obstacles and who were their friends and enemies. The first obstacle he had met with was the opposition and criticism from our own people and State. He desired to make the producers prosperous, and, anything that prevented this, ultimately injured the merchants. It was to the interest of the latter to study the interests of the former, yet with two or three exceptions there had been little or no sympathy shown. Lately, some New York houses had acted with more sympathy, and the opposition, not being based upon any good reason, had melted away. It had been assumed by some that there was a conflict of interests

between the Pacific Coast and the East. The outgrowth of the National organization, however, had brought all together and made one powerful interest in the United States. There was no real difference between the interests of the wine importers and the wine makers except on a question of tariff, and he had shown that it was not to the interest of the importers to interfere because all wanted to cut off bogus wines which competed as much against the importer as against us. Before the session closed there was perfect harmony in our relations with the importers, and the strongest petition presented to Congress was from the wine men of New York.

OUR BRANDY MAKING

Affects the spirit interests in which there is a broad distinction, one being made entirely for consumption and the other being for consumption and compounding. On one side of Ohio, in Kentucky, was the Bourbon interest which tried to improve and age their whisky. On the other side they made alcohol for rectifying and sold Bourbon for \$1.50 per gallon which could not be purchased at \$3.00. They sold neutral spirits for compounding bogus wines, brandy and whisky. Brandy from California that had been exhibited in the East, and in one place taken a prize, was only Cologne spirits. These people, whose interest was growing large, should be exposed as they stole our market.

THE PROHIBITION INTEREST

Was extending throughout the country, and brought considerable political influence to bear against the wine business. The prohibitionists do not discriminate between wine and rot-gut whisky, much of which was made to run the blockade in the prohibition States, where it succeeded as it was not so bulky as wine. After months of work and analyzing the opposition, he found they were now all well organized and had only two enemies in the United States—the prohibitionists and the neutral spirit interest. The wine, beer and genuine spirit men all recognized that their interests were identical, and they must suppress abuses. Legislation was a matter of detail after getting the support and interest that was wanted. In New York there was \$50,000 used on behalf of the dairy interests against oleomargarine, and the grangers were well organized. We started with no organization except in California, and were in a

hopeless plight against others of vastly greater political influence.

THE WINE BILLS.

The Sweet Wine bill had practically passed, only a conference committee with the House being wanted. The Kentucky whisky men had appealed to their Senators to help us and Mr. Pratt of the *Wine and Spirit Trade Review* had used his influence. It had been carried through the power of these representatives and was stopped when there was only three days left to work it through the House. The majority of the Ways and Means Committee had promised to support the bill and it would go through next winter. The Spurious Wine bill was the model taken by the butter men for their work. They had strength to take their bill away from the Ways and Means to the Agricultural Committee in the House, and to the same Committee in the Senate from the Finance Committee. Even if the Spurious Wine bill failed next winter, and the chances were nine to one that it would be crowded out again, they must keep up their fight for five years if necessary. They would be at war with the bogus wine makers even after the bill passed. They must watch the tariff and not let cherry juice be imported. In New York, last year, there were 600,000 gallons of cherry juice imported which was only a mixture of potato spirit and fruit. This stuff pays only a duty of three to four cents a gallon, while wine pays 50 cents and alcohol \$2 a gallon. This amount, annually imported, probably represented 2,000,000 gallons of wine, when it was watered, and so much was stolen from the genuine wine maker.

EASTERN MARKETS.

This bad wine is prejudicial to the consumption of good wine. New Orleans, for instance, had developed a splendid market for wine. But he found there that wine, from a California wine house, was now being sold there at 36 cents a gallon delivered at the houses. If the people did not like this stuff then the market for good wines was lost. The higher grade market had developed a new difficulty. He thought that a system of local cellars with matured wines should be established in every Eastern city. Consumers could then buy by sample which they could not do now. They get a barrel that they like but never know if it can be duplicated, and, in the second order, may get a wine that does not suit

their taste and so they stop drinking it. There was plenty of room in all large Eastern cities for one or more wine cellars, but the chief trouble was that our merchants had but little good wine to compete with the high grades of imported wine. He found that the American taste was most acute and critical. Their taste was less corrupted; they were very fastidious and would only drink what appealed to their taste. Consequently we must have cellars in the East where people can handle the goods and buy what suits them.

THE BEER INTEREST.

Mr. Wetmore thought that in a few years we would be able to influence the brewing interest in the East. They were a most respectable, enterprising and patriotic class of men. The same class of customers that used beer drank wine, and he thought that the brewers might increase their cellarage and deal in wines which would not interfere with their beer business. Mr. Pohn-dorf had leased a cellar which was formerly used for storing ale, and he had gained much information by watching the intelligent way in which the brewers handled their goods and increased their business. There was no conflicting of interests and no reason for jealousy between the beer and wine men, and he believed that both could work harmoniously together.

THE BOGUS WINE

Is our bete noir. We must get it out of the way and then we shall have a moral standing. He believed in maintaining saloons if they were properly conducted as a place for the social gathering of poor men. But they must not be used for the sale of rot gut whisky and deceiving the consumer who never knew what he was getting. This could be done by proper control and not permitting saloon keepers to sell any but straight goods at least three years old. This would cut off all compounding, and we must clean out the abuses or we would be cleaned out ourselves. In the South the trade in unloading inferior stuff, direct from the distillery, was strengthening the hands of the prohibitionists.

THE BONDING PRIVILEGE.

The interest of the extension of the bonding privilege has been reported upon by the Ways and Means Committee. This granted permission for the tax to be paid only when the goods were taken out of bond for sale. This bill must be pushed as

there was no margin left to sell in three years. The Ways and Means Committee had reported a compromise bill to reduce the tax on fruit brandy to fifty cents a gallon. This would enable us to get the support of a large class.

In conclusion, Mr. Wetmore said that the future work was well laid out. We knew our enemies but we must not expect too much. There were 10,000 hills introduced, some of which would never be heard of again and others were of great public interest. We had a fair prospect but there must be adequate support coming from home.

Mr. Charles Kohler thanked Mr. Wetmore for his indefatigable efforts, and stated that more had been accomplished than they could reasonably have expected. To keep the attention of the public fully awake they must have an agent in the East all the time. Considering the large interests at stake this would take a very trifling fund if all would contribute. But it came rather hard upon them when only a tenth of the number would assist. It would require \$4000 or \$5000 to finish the work next session but this was nothing at a pro rata contribution for the acreage in vineyards. He moved that a Committee of five on Ways and Means be appointed to arrange for future work. Carried.

Dr. Stillman suggested that a contribution be levied in proportion to the sales of each vineyardist so as to equalize matters. All should do their duty.

Mr. J. H. Wheeler suggested that Mr. Wetmore should give the Committee an estimate of the probable expense and that an assessment should be levied according to acreage. Every man would then know what he was expected to pay, and they would be more likely to contribute on a pro rata basis.

Mr. Wetmore suggested that a vote of thanks be passed to Mr. B. F. Clayton, Secretary of the National Association, who had really done the work of organization and given so much active and valuable assistance. Carried.

On motion of Mr. Charles Kohler a vote of thanks was passed to ex-Senator Sargent for his valuable assistance in furthering legislation at the late session of Congress.

President McIntyre drew attention to an omission in the By-laws and notice was given to so amend them, at the next meeting, that the President or Vice-President acting as Chairman shall be an *ex officio* member of the Board of Directors.

Mr. Charles Kohler having drawn attention to the publication of a proclamation against the wine cause by a crank, Dr. McDonald, during the encampment of the G. A. R., a Committee was appointed by the Chair, consisting of Dr. Stillman, Mr. Wetmore and Mr. Kohler, to reply to the crank's proclamation.

On motion of Mr. Wetmore an invitation was extended to Commissioner Norman J. Colman and Commissioner Miller requesting them to visit the Pacific Coast and examine the status and requirements of the wine industry of California.

THE GRATE CROP.

At the afternoon session President McIntyre asked for reports on the growing grape crop and coming vintage as members elsewhere were looking for information.

Mr. Husmann said he lived in an isolated position and had seen but few vineyards, therefore he had not the means of knowing the general condition of the crop or of basing an opinion as to prices. There was

a very good crop on the estate which he managed. At Talca there was a heavy crop and nearly all looked well as to yield and quality. The Franken Riesling had set well. He had no sunburn which he ascribed to his method of summer pruning which shaded the grapes. During his first vintage there the vines were not summer pruned and he had a lot of sunburn. There had been none since except on a few bunches of Grosser Blauer and Flame Tokay. His method was to pinch, early in the season, the tops of the shoots that were left.

Mr. C. E. Shillaber said that the crop at Cordelia was first-rate and a little above the average. It was a good deal larger than the 1884 crop.

Professor Hilgard reported a fair crop, but he had only been in the Santa Clara Valley, where there had been a little culture in the lower parts. The Johannisberg Riesling was a total failure at Mr. Juan Gallegos' place, where only a few samples would be obtained from ten acres. Zinfandel had done well, especially the second and third crops. At Mission San Jose there was a good crop but it was late and only just coloring.

Hon. J. F. Black reported a very fair crop at Livermore. Some vines pruned on the old system had suffered from sunburn, but this was not the case where the vines had been pruned on the Chaintre system. Some pruned according to the Guyot system were all right, and he considered that those affected were due to an accident, the very hot weather coming immediately after pruning.

Dr. J. D. B. Stillman reported the largest crop they had even had at Lugonia. The Trousseau and Charbono were ripening. His Sultanas were improving in bearing as they grew older, each year giving a heavier crop. The Folle Blanche was magnificent and better than any variety he had.

Professor Hilgard said he was getting a heavy crop from this year's grafts on California stocks, but none on Riparia though there was not much difference in the growth. His soil was heavy and better adapted to the California.

President McIntyre reported that, near the station at Captain Niebaum's, the Riparia grafted with Taunat were bearing finely and promised well. Of his Black Burgundy grafted on Riparia he had 68 per cent starting.

Professor Hilgard said he had 12 per cent loss on Californica, and 50 per cent loss on Riparia.

Mr. Shillaber said that his Black Burgundy had not joined well with Riparia.

Mr. Black had 97 per cent of success with Cabernet Sauvignon on Riparia.

Professor Hilgard said that care must be exercised in wrapping on the Riparia. His men, who used wax twine and clay, had not wrapped tight enough. His Californica was twice as thick as his Riparia. He did not want Rupestris on his soil which was not suitable for it.

Dr. Stillman said he had obtained 250 rooted Palamnos, a sherry grape, from Mr. Pohndorff. They had grown well and promised to bear heavily, but the leaf had turned and appeared blasted when the grapes were half grown and had set well. The vines were in good soil and had been irrigated.

Mr. Husmann said that at Talca, his Franken Riesling on Elvira and Riparia roots had set well last season and this season. At Chiles valley they had not set well. His Sultanas on Riparia had a mod-

erate crop last year and were very abundant this year. They were in adobe soil and some of the vines four years old, on grafts two years old, had 50 pounds of grapes to the vine.

President McIntyre reported that in the Napa Valley, near St. Helena, the Zinfandel crop was light and appeared to be exhausted and to have made no effort to produce. At Oakville and Rutherford, there was a good crop but not so heavy as in other years. At Yountville there was a fair crop. Sales had been made at St. Helena at from \$22 to \$26 for all round lots of foreign grapes including the Zinfandel. The Malvasia was to be thrown out if the crop was excessive. There was practically no Mission in the valley. The Zinfandel second crop was very heavy.

Mr. Wheeler thought it was a better year for prices than for crops. There were less grapes than could be made up in Livermore valley. The dry weather had reduced the crop and many vines looked dry and dejected. This was most marked in the young vines. He had heard more complaint lately of mildew and oidium than earlier in the season, but the effect was not so injurious to the grapes. He was surprised at the large crop in Napa Valley, which was much more than he had expected.

Mr. Husmann said that in Chiles valley the Zinfandel crop was unusually heavy. The Riesling had not set well, the Sauvignon was better, but the Chanche Noir was indifferent.

President McIntyre was of opinion that the recent dry weather had considerably reduced the crop.

The meeting then adjourned till the first Tuesday in January.

"LE MERVEILLEUX."

A representative of the MERCHANT has visited the large machine shop of J. B. Jardine, and the factory of Krogh & Co., where the Paré Bros. are building their wine presses, the "Le Merveilleux," which is claimed to be the best and cheapest wine press made. The platform or bed rests on a two wheeled cart, which enables the operator to move it to any part of a vineyard or between the rows of tanks in a wine cellar. The basket is made of the best straight grained Mendocino Pine staves, riveted to three bands of the finest quality of iron. These bands are each in halves. On one side they are connected by a hinge, and on the other are locked with pins, and, by removing these pins, the basket can be opened to any width required, and the must be removed in a very few minutes. The edges of the staves are beveled, the distance between them on the inside being $\frac{1}{4}$ of an inch, and on the outside $\frac{3}{4}$ of an inch. This renders it impossible for the grapes to get jammed in between the staves.

Rapidity is one of the strong points of this machine. It takes only from twenty to forty-five minutes to make a pressure. The "screw" which stands upright in the middle of the "basket" is fastened under the "bed" by a nut which is six inches thick, screwed on and riveted to the end of the screw. The operator moves the large lever which is from five to eight feet long, and moves in a space of six feet backwards and forwards. This pushes alternately two small levers, which in turn catch in the ratchets of the combinations on their forward motion, and keeps the wheels or combination steadily falling down the main screw. In commencing to lower the crushes upon the grapes, and when speed is re-

quired, the lever is placed in an upper combination, which acts directly on the screw, and in a few movements of the lever it has reached the grapes. The Presses have been calculated to withstand the pressure according to their capacity, so if the smallest is incapable of breaking itself, the largest is equally so.

The main feature of the press is the ease with which it may be worked. Mr. Paré forced the lever as far as it was necessary to go in one direction, using only his little finger, upon shavings which had previously been packed so tight that it was impossible to run a knife into them.

A Trans-Pacific Trade.

[Australian Times and Anglo-New Zealander.]

Commercial relations are being developed between Australia and America, at a rate which should command the serious consideration of the British merchant and producer. We say this in no spirit of jealousy at the commercial activity of our trans-Atlantic cousins. On the contrary, we are sincerely rejoiced to observe that they are so desirous to establish ties of friendship and business with a growing and kindred nation, which is evidently destined with themselves to exercise a predominant influence over that vast ocean which is known as the Pacific. The expansion of the American-Australasian trade is, however, more rapid and considerable than most people are aware. This is the more surprising since the United States Government, instead of fostering and countenancing the development of the trade, have systematically refused to even grant a subsidy to the line of mail steamers which the enterprise of the colonies has for the last decade or more maintained between Australia and San Francisco. Through this channel American products and manufactures have been introduced into the colonies, until last year the aggregate import and export trade amounted to very little less than \$14,000,000. A valued contemporary—the SAN FRANCISCO MERCHANT—supplies the following figures of the American-Australian trade for the past three years:—

Year.	Imports.	Exports.	Total Trade.
1883	\$2,088,000	\$6,730,000	\$8,818,000
1884	\$4,160,330	\$10,331,771	\$14,492,101
1885	\$2,439,795	\$11,455,014	\$13,894,809

The balance of trade in favor of the United States would therefore appear to be in 1883, \$4,642,000; in 1884, \$6,171,446; and in 1885, \$9,015,219. These figures imply an enormous balance of trade against the colonies. The importations from the States chiefly consist of agricultural implements, carts and carriages, drugs and medicines, iron and steel manufactures, kerosine, leather and its manufactures, fish, tobacco, lumber, sewing machines, household furniture, canned goods, fruit, toys and notions. In addition to this the Americans derive no inconsiderable advantage from the extensive passenger traffic which has been developed and which is yearly increasing in volume. Our readers will have observed that an agitation is proceeding in the colonies in favor of making overtures to the United States Government, with the view of inducing them to afford more favorable terms for the admission of Australian wool. Should these negotiations result in the concession of the desired boon, the trade between the two countries would be immensely stimulated, while that with Great Britain would be correspondingly affected. The British exporter would do well to study his position in the light of the statistics we have given above.

WINE MAKING.

(G. Arnaud in the Monticello Farmer and Grape Grower.)
CLARET.

This article will treat only of the *Practical fabrication of Wine with Grapes*, without addition of any material foreign to the fruit of the vine, in its fresh estate. We condemn, in the making of good wines, the additions of sugar, glucose, cream of tartar, tartaric acid, tannin, water, glycerine, etc. The wines made in this way, we classify with artificial wines. They may be good to drink, pleasant, etc., but they cannot possess the healthful, wholesome and medicinal properties of the pure juice of the grape.

Wine must acquire its quality from the good selection and judicious blending of the varieties of grapes, the good cultivation of the vines, the care in gathering, fermenting and wine making.

A good claret, when ready for use, must have a bright-red brownish color, body without dryness, a pleasant and aromatic flavor, a decided fruity taste; it must be mellow and velvety, its alcoholic strength must be from 9 to 11 per cent.

For producing such wines the grapes must be ripe and perfectly sound; all rotten and green berries must be removed, and the fresh juice must contain 20 to 22 per cent of saccharine matter and 6 to 7 thousands of acid. The grape grower has to taste his grapes, almost every day, during the ripening season, with a saccharometer or must scale—(Eseble's Must Scale is generally used. The degrees on that scale represent practically:

82 degrees,	18 per cent sugar.
85 " "	19 " "
88 " "	20 " "
91 " "	21 " "
94 " "	22 " "
97 " "	23 " "
100 " "	24 " "

For tasting the acid, Twitchell's Acidometer is very convenient.

The vintagers in France do not practically use other instruments than those provided by nature. They taste the fruit, and are so much used to that tasting, that they can judge very well of the proper time of gathering. As all the grapes do not ripen at the same time, even on one single vine, it is good to pick only the bunches perfectly ripe and to go a second and third time for the balance.

The gathering can be done from sunrise to sunset; however, it is good to let the dew evaporate, in view of not decreasing the density of the must. The grapes are gathered in wooden baskets or pails, then dumped in larger tubs and carried immediately to the cellar or press-house.

The common way is to mash or crush the grapes through a grape-mill, consisting of two wooden rollers standing above the fermenting vats, and to let them fall from the mill in the vats. A better way is to take off all the stems from the grapes before mashing, which is done by a sort of wooden or galvanized wire sieve. With some of our American varieties the stemming is very easy; with others, it is very difficult, and almost impossible.

The best fermenting vats are made of white oak; the most convenient capacity is from 1000 to 1500 gallons. They must be perfectly clean. Before putting the grapes in the vat, a strainer of wood or galvanized wire cloth must be fixed inside, in front of the hole which receives the faucet.

A vat must be filled without interruption, or at least in the same day. As soon as the grapes arrive within eighteen inches from

the top of the vat, it is full enough. The grapes are perfectly levelled and immediately covered with a perforated false bottom, or a cover made of laths a half inch apart and solidly fixed to the sides of the vat, in view of keeping the husks, berries, skins and all completely immersed in the must during fermentation. The fermentation will soon take place. How long it will last, I cannot say; it is not regular; the quality of the grapes, the temperature of the cellar, the size of the vat, and many other causes have a great influence on the fermentation. The wine maker must taste and learn how to appreciate the right time of drawing the wine in casks. If the grapes have been thoroughly stemmed, the wine can be kept in the vat until the fermentation is entirely completed; but if the stems and all have been put in the vat, there is danger for the wine to contract a bad taste from the husks, to be rough and acid; then it is better to draw it sooner. The best temperature for fermenting is from 70 to 80 degrees, F. After all the wine has been drawn from the vat, the husks or pomace are carried to the press and all the juice is extracted by pressure. This press wine is not mixed with the first, but kept separate and used as second quality or for distilling. It makes very good brandy.

The casks must be made of white oak, new, if possible, or having been used for wine only; the best size is from 50 to 60 gallons. Before using, they are scalded with a gallon or two of boiling water, which is allowed to remain in the cask about one hour, or if practicable they are steamed, then they are washed twice with cool water and let dry for one hour or two. They must be placed in a good cellar, on two scantlings 4 by 6 inches; the bottom of the cask about one foot from the ground for the convenience of racking off. Immediately before putting in the wine a small piece of sulphur sheet, say one inch square, is burned in the cask. The cask is filled up to the bung hole, in which a bung without cloths is put loose, to let the gas produced by the fermentation escape. When the fermentation is entirely finished, the bung is put in tight. The cask must be kept always full, which is obtained by filling twice a week in the beginning, and afterwards once a week.

If the grapes are good, the claret made by the above process will be good.

Now, if some people have grapes deficient in sugar with excess of acid, of all the processes to use them with advantage, the process of Dr. Gall is the best. It has been published over and over again, has been used and misused. It improves the quality of the poor wine made with bad grapes; it is like a remedy for a sick person; it is better to use Gall's process than to lose a crop of grapes.

And for the people who have no vineyard yet, I will advise them to look for a locality and a soil which will bring good grapes for the purpose they have in view. For claret grapes, I think that Virginia offers all the advantages that can be desired, and if the grapes are of good varieties and well cultivated, Virginia will have no rival in the production of claret.

WHITE WINES.

The best way is to imitate, as much as possible, the process used in Sauternes or on the Rhine.

The grapes are left hanging on the vines as long as possible. The fermentation

taking place without the husks, no matter if the skins are injured by being over ripe. The picking is not made of all the fruit at once; there are generally three regular pickings, sometimes more. The gatherers, with scissors or small shears, select only the bunches or even the berries perfectly ripe, over ripe or as they say rotten. Of the bunches which are carried to the press it would be impossible to pick up one single berry fit to eat, the skin is entirely decomposed, and the berries are half sun-dried or rotten; this rot is not a sort of mould, but a peculiar decomposition of the skin and a beginning of evaporation of the juice; the moment of picking has to be carefully watched to avoid too much loss; although there is always a certain loss, and I may say that the quantity is reduced about one-fourth, when the quality and consequently the price of the wine is doubled. Upon such a gathering only depends the quality of the Sauternes or Rhine wines.

The berries and bunches so selected are carried to the press-room and dumped in large flat tanks where they are washed by the trampling of the bare feet of the vintagers, (of course they wash their feet before entering.) The trampling is repeated three or four times and the pomace is submitted to a heavy pressure. All the must is collected in a small vat from where it is put immediately in new casks of white oak, prepared as for red wine.

I do not think that for grapes in such condition as those, going through a grape-mill would be sufficient to extract all the juice, and if the rollers of the mill were set too close, seeds and stems would be crushed and will impart to the wine a bitter taste. There are only a prejudice against the use of the feet, they may be as clean as the hands of the cook who kneads the dough for your bread, and besides the fermenting will take off all impurities. Look at a glass of Sauternes or Johannisburg, shining as topaz, and of a flavor so delicate and so exquisite. I have never seen anybody object, at that time, to the feet of the vintagers.

The casks must be kept full, by filling every day during fermentation, and when the fermentation is over, twice a week.

To the Importers and Consumers of European Clarets.

The Wurttemberg weekly agricultural paper of March 14th, 1886, recommends the following as an estimable cultivation for commerce. It says:

"Mallow, black blossoms, are in lively demand in France and recently also in Spain for the coloring of wines, and the warehouses have been cleared on account of the advance in prices of the same. The cultivation of the flower would therefore be of profit to the farmer again."

Mallow juice is by no means a poison, but the use of the same for wine is an adulteration. Wines colored in this manner never have the character of true Clarets, and Clarets properly treated never need such an addition, which consequently is only used to cover mistakes or for diluting.

WM. RUFF.

Mr. George A. Cowles of El Cajon, San Diego county, writes to the MERCHANT that his Muscats are looking very fine and are as early as they were last season. He thinks that his mammoth acre will excel the crop of last year.

Subscribe for the MERCHANT.

THE NATIONAL VITICULTURAL ASSOCIATION.

Circular Addressed to the Vine Growers of the United States.

Gentlemen: The National Viticultural Association, organized at Washington in May last, was brought into existence to develop and promote the industry of Viticulture in the United States. This industry has grown rapidly during the past ten years, and is already claiming rank and recognition as one of the leading ones of the country. It has been found that existing laws in some degree obstruct its growth, and that certain legislation is needed to further secure it against many threatening dangers, the chief of which is the adulteration and falsification of vineyard products. Every grape grower will readily understand that the wine cellar will always be his principal market for his grapes; whatever operates to do away with the use of grapes in wine making *indirectly* directly with his market. All this business is a direct assault on the interests of the vine growers. Hence the importance of checking adulteration and artificial wine manufacture. One of the purposes of the Association is to suppress this nefarious traffic. If we are to have wine let us have pure wine and not chemicals. Another important function of the Association is to study the question of diseases of the vine, and the Climatology of the country in its relation to grape culture, also Entomology with the same purpose. The theory and practice of wine making, the manufacture of Raisins, Jams, Jellies, etc. from grapes; questions of transportation, exportation, extension of market facilities, etc., will all come in for a share of attention; in short, the Association is the organized power and intelligence of the vine growers, prepared to cope with the difficulties and dangers that lie in their pathway. It is proposed to make it a permanent institution and to continue its work uninterruptedly through the seasons.

It will thus be seen that it is for the interest of every grape grower to join the Association and to bear his share of the burden of sustaining it. It has been well said that membership should bring with it absolute "loyalty to viticulture in all its phases and in every relation in which it may be considered," viz: "honesty, loyalty and earnest purpose."

All "grape growers, wine makers and producers of brandy from grapes grown in the United States" are urged to join this Association and help forward the work of developing this noble industry. Applications should give full name and post office address of applicant, stating whether grape grower, wine maker or distiller, and extent of plantings, etc., and should contain the annual dues of \$10.00.

Local Associations may select delegates and pay the annual dues if so desired. Checks or post office orders should be made payable to Geo. E. Dewey, Treasurer.

The undersigned, in connection with the viticultural council are giving their earnest attention to the work of the Association, and it is hoped their efforts will be sustained by the active support of all parties interested. Let us all join in making a great and useful Association.

All applications should be forwarded to the Secretary, 24 Park Place, New York.

Respectfully and fraternally,

C. A. WETMORE, President,

B. F. CLAYTON, Secretary.

OFFICE OF THE SECRETARY.

No. 24 Park Place, New York, Aug., 1886.

WINE GRAPES.

The Best Varieties for Planting in South California.

(A. Langenberger at the Los Angeles Pomological Society.)

We here in Los Angeles county only lately began to plant the new varieties of grapes instead of the Mission, but now that grape is happily but seldom planted. Another grape which, unfortunately, has been extensively planted is the Malvoisie. It should only be used for sweet red wine or for eating purposes, but never for table wine. In my opinion the Mission is the better grape of the two. I know from experience that vineyardists have planted Mission and Malvoisie cuttings because they could get the cuttings for nothing. They will be sorry for this yet. For from \$3 to \$5 per thousand cuttings they could have bought a good class of vines, of which they could have sold the fruit readily and at a much better price. This reminds me of a little story I read the other day in the MERCHANT and which I would ask the great wine makers to follow out: if they do, no more Mission and Malvoisie will be planted.

The Prior of the Cloister of Newburg, near Vienna, was, as all Priors and monks are supposed to be, a lover of a good glass of wine. Unfortunately, his vineyard was too small to supply the wants of the good monks. He was therefore obliged to buy wine from the vineyardists of his neighborhood to fill his cellar; but these neighbors had only such vines in their vineyards which never failed to make big crops, like Mission and Malvoisie; for quality they did not care. The Prior had frequently advised them to plant better kinds, and offered them cuttings of good grapes at very low rates, but the farmers could or would not see the advantage of better grapes and better wines. They said that as their fathers and forefathers had drunk this wine, it was good enough for them. The Prior then knew what he had to do. When the time for vineyard planting came on, he had a lot of cuttings of the kind he wanted wine prepared of and told his overseer to haul a lot of them to a convenient place, where his neighbors would surely see them. The next morning the overseer reported that the cuttings were all taken. The Prior in that way disposed of all the cuttings he could spare. True enough, he did not realize even for his cuttings, but he knew that in a few years he could buy enough good grapes for his wants.

The grape which next to Mission and Malvoisie is most common is the Zinfandel. As every body knows it, I will not further describe it. The Zinfandel is one of the best red grapes we have. It makes a good white and also a good red wine. On poor soil it will not do, but is a good bearer on the better class of land. It should never be irrigated after April. The berries grow in very compact bunches on short stems, and as late maturing on good soil swells the berries to such an extent that they have no room to expand, they burst in the middle of the bunch and the consequence is that the whole must rot. I think the planting of Zinfandel is overdone, and should be stopped a little while as too much of our kind will depreciate its value.

Black Hamburg I do not advise to plant. It is liable to rot and is, besides, not a good wine grape. Black Morocco and Rose of Peru I discard for the same reason, although not subject to rot like the Hamburg.

Both are vigorous growers and produce good table grapes.

I continue the list of black grapes, and come next to the Concord, a native of the Eastern States. This grape does well here. I have never yet used sulphur on it, yet never saw mildew or any other disease, neither on the leaves nor on the fruit. At least a row of them should be planted in every vineyard for the excellent jelly they make. For wine it has the disagreeable habit of never ripening its bunches perfectly, as there are always entirely green berries on otherwise ripe bunches. This will not hurt for jelly, but would never do for wine.

I further have tried the Malbec and Black Pinot. They are poor bearers, particularly the first one, and do not make up in quality for loss in quantity.

Next comes the Lenoir (the black.) It is a wild grape of the Southern States and a resistant—that is, proof against the phylloxera. The foliage is of a dark green, with an abundance of very large leaves, making the vine very handsome. The fruit grows in long, loose bunches all over the vine. The juice in the berries is already red and the wine of an inky darkness. It is on this account a very valuable variety for coloring red wines, as in some years the Zinfandel and other varieties are deficient in color, and a very small quantity of the Lenoir wine is sufficient to make a red even out of a white wine. The Lenoir makes a first-rate grafting stock, as it takes the graft readily and grows very vigorously even on poor soil. To make it bear much it should be pruned long with many spurs, the more left the better it is.

Now I come to the Cabernet Sauvignon, a Bordeaux grape, which is considered in France as making the very best red wines. Of the Cabernet with Merlot is made the celebrated Saint Julien, Chateau la Rose and other fine wines. The foliage is dark green leaves, deeply serrated, a strong grower, even on poor soil. The bunches are small and berries the same; the wine of a dark, ruby color. I think nobody will regret to have the Cabernet planted instead of Zinfandel or any other much bearing vine, as in a short time quality will be sought and paid for: this is my firm belief. I see that a Livermore wine maker offers for Cabernets \$50 a ton, while for Mataro, Zinfandel and Carignan he only offers \$20 a ton.

The Merlot is a vine very similar to the Cabernet, also a fine Bordeaux grade, but not quite so renowned. It grows here extremely well. I have further planted the Troncacon, or, as others call it, Bastardo. It should never be planted on sandy soil, but does well on heavy bottom land. The bunches of this grape are small, berries medium size. It is a good grape for red wine, but is the best for Port. It is the real Port wine grape of Portugal, and as the demand for Port wine is very large, this grape cannot be planted too much.

The Mataro is said to be the foundation of the French clarets with Carignan and Grenache. I have eight acres of it planted and will make this year the first wine of it. I cannot, therefore, speak from experience about the wine. Mr. Wetmore, whom we recognize as an authority in matters concerning the vine and wines, says that the Mataro makes the best keeping wine of any grape, on account of the large amount of tannin it contains, and that it imparts its keeping quality to other wines it is mixed with. It is, therefore, a fine we

ought to plant more. The plant wants good soil and is a rather slow grower in comparison with others.

Next is the Grenache, a black grape from Southern France, one of immense growth and a heavy bearer, as I found on eight acres I planted two years ago, and on which I shall make this year quite a good crop. It is said to be the grape used mostly for French claret, and very valuable to make sweet red wine, on account of its good color and great amount of sugar it contains. The Carignan, of which I have also eight acres planted, is doing very well, and is said to be a good bearer and a good claret grape.

The two last ones, but particularly the Grenache, do well on poor soil. I have tried it and can recommend it for such land. Many serious mistakes occur in planting vines on soils not suited to their habits and a failure is sure to follow. I had to pay dear for several mistakes I have made in this way, and it may save loss and annoyance to some of you if you will listen to what I have said.

These are all of the black grapes I am acquainted with from personal experience, and will now continue with what I know of white grapes:

Orleans Riesling should be trained on long stakes, and if rightly trimmed is a very good bearer. With me it is not a strong grower, which may come from having it planted on rather poor land, on which I had formerly Mission which grew splendidly on this same land. The bunches are below medium, very compact, berries good size. The grapes mature late, one of the latest I have. The wine from it is slow in maturing, like all good wine.

White Chasselas, as it is called here, which several experts call the Palomina, and they probably are right, is one of the best white grapes I know of. It is a very thrifty grower, makes fine leaves to shade the grapes, which are large and in large clusters of a delicious taste. It is a medium good bearer every year. The wine ferments easy without any trouble whatever. It is, to my taste, the best table grape without exception, but does not bear transportation well. If, as the experts say, this grape is the pure Palomina, then we have in it the very best sherry grape of all. I have always recommended this grape to wine-growers. I have offered the cuttings for what they cost, and am seriously contemplating to do what the Prior of the Cloister of Newburg did. I would have done so already if I had known that story sooner. Mission and Malvoisie were too much for Chasselas or Palomina, and so I had to burn my cuttings. The Chasselas grows well on all soil, even on poor. The wine of the Chasselas or Palomina is as good as the grapes are for eating, and they are excellent.

The Muscatel of Alexandria is only fit for sweet wine and the best grapes for raisins. I will not say anything of this grape as Mr. McPherson will tell you all about it. It does well here.

The Burger, or Berger—I do not know which is the right name—is the next on the list. It is the principal white grape planted here, a strong grower on good soil, and on such a heavy bearer. It should never be planted on poor land where water is not to be had in time wanted. The Berger has very large, compact bunches; the grapes have an exceedingly thin skin and are all juice. The wine of it is light and agreeable, without any pronounced flavor or bou-

quet, which makes the wine so very useful for mixing with other wines. It has, although a wine of only 7 or 8 degrees of spirit, remarkable keeping qualities.

The gray Riesling is a very early grape. The branches grow up straight and thick, and therefore shade the fruit well. The color of the grapes is a light, dirty gray, berries medium size, bunches small, but many of them. The juice is very rich in sugar, and makes a very fine white wine after being treated two or three years. It grows best on good land.

White Semillon is considered the finest French white wine grape, of which the celebrated Chateau Yquem is made. It has not done well with me on account of the small amount of fruit it makes. The bunches are small and few, the berries rather large and of a delicate flavor. As it bears so little I would not advise planting it. I am trying a number of other vines; but as they have borne no fruit as yet, I will not speak of them this time.

A VISIT TO SAN JOSE.

The most noticeable exhibit of wines and grapes at the Santa Clara Valley Fair, was that from J. B. J. Portal's Burgundy Vineyard, it being a large and attractive display. Mr. Portal had on exhibition a "graft" of Cabernet Sauvignon, imported this year from Chateau Lafette, France. It is ten feet high and had over forty branches. He told us that his Cabernet Franc is bearing ten tons per acre, also that his Medocs, Cabernet Sauvignon, Merlot, Petit and Gros Verdot and Malbec, of which he had some fine sample bunches on exhibition, are all doing well. Mr. Portal's coöperage has just been completed and is ready for this vintage, which will commence next week. Near Mr. Portal's was the exhibit of W. Pfeffer, who had a very fine display.

Mr. J. P. Bubbs had some Crawford's from a thirty-one year old tree, (Gloria Mundi variety, 15¹/₂ inches in circumference, and a Bean stock three years old, which had reached a height of ten feet. His exhibit of grapes and wines was a very creditable one. Mr. H. Davidson had some figs which were excellent; his prunes, egg plants and Zinfandel grapes were also very good.

Mr. D. C. Feeley of Patchin, who made the largest display of table grapes at New Orleans, had on exhibition several varieties of very fine grapes and wines. His seven year old Angelica is excellent.

Capt. J. C. Merithew exhibited samples of Brandy, Port, Claret and a combination of wine and brandy called "Bonanza" from the Prospect Vineyard.

The Pacific Silk Factory had a very fine display of their silks, which are all manufactured at San Jose. Mr. H. X. Van de Castele, the President of the Company said, that owing to the people not taking sufficient interest in the culture of the silk worm, he is obliged to get the bulk of his raw silk from Spain, France and Italy.

John Rock, E. Bourguignon and R. D. Fox's nursery exhibits occupied three large tables in the center of the building, running its entire length. Mr. Rock exhibited some very fine apples, etc., which attracted considerable attention.

Mr. J. P. Jacob's Willow Grove hops were excellent. Hops from the same farm received the first prize at the World's Fair.

The majority of the fruit and grapes exhibited were grown without irrigation, and showed no signs of a lack of water.

SULTANA RAISINS.

The Object and Method of Using Lye.

The following letter, addressed to Messrs. Wm. T. Coleman & Co., was published in the MERCHANT last year, though rather late in the raisin packing season to be of general utility. As it is of interest and value we reproduce it this season, several inquiries having been made by raisin packers as to the method of using lye:

Wm. T. Coleman & Co.—DEAR SIRS:—Your favor requesting information about curing the Sultana raisins by use of alkali is at hand.

The information I have not received from the producers of these raisins but from letters written by the American Consul at Smyrna, who simply said they were cured by dipping in lye, and drying in the shade. Now the object of dipping in lye was, of course, to crack the skins so that they would evaporate more quickly, and that of drying in the shade was to make the fruit of a lighter color. One fault of California Sultana is that it is too dark, it is usually dried by an exposure to the sun from fifteen to thirty days, and of course it is as dark as any other raisin. Another fault is, it lacks the richness of the imported article, in fact it is often sour; there are two causes for this, one is that the land on which it grows is too wet, either from irrigation or its naturally moist land. Another is gathering it before it is ripe, that is a point which is not so easily determined as with the Muscatel; when they hang in the sun they get amber colored, but in the shade they do not and still one may be as ripe as the other. Every raisin maker knows that good raisins cannot be made from unripe fruit, so they would be sure that the grapes are ripe and sweet before they attempt to cure them.

The use of lye is a simple matter but one that requires a little experience to do just right. I would advise parties to experiment with a solution of either potash or soda, in the following proportion: one pound to twenty gallons of water, trying different temperatures of the solution until the right is reached, that is until the skins are cracked. The apparatus necessary for the application of the lye is simply a large iron kettle in which to heat the solution, and a basket made of wire cloth or perforated tin for the grapes. The next point is to cure the raisins as soon as possible. Success in this point will depend much on the locality. At my place, near Stockton, the grape has not been fully ripe before the 1st of October but one year in the five past, and that is the present one, which is fully one month earlier than any other in the same time. In warmer localities where the grapes are ripe by the 1st of September, they can be easily dried without the full exposure to the sun in fifteen days, even less. I have placed bunches in the building where no sun was able to reach them and dried them well and as clean as an imported article. Yours truly,

W. B. WEST.

Stockton, October 1, 1885.

Mr. Charles A. Wetmore, Chief Executive Viticultural Officer, left for Los Angeles and San Diego on 22nd inst. to meet the wine and raisin men in the Southern part of the State. On his return he will prepare a report, to the State Viticultural Commission, on legislative work, explaining in full all the bills in which we are interested.

A TRIP TO NEVADA CITY.

To anyone visiting Nevada City, or its vicinity, I would advise him by all means to go to the nursery of Felix Gillet, and should it be his good fortune to meet the genial proprietor, he will be shown around and highly entertained by his intelligent conversation. He has named his place "The Barren Hill Nurseries," which might have been an appropriate name at one time, were one to judge from a small piece of land yet uncultured and not yet under cultivation, but it is certainly now a misnomer, for the hill is laid out in fine style and thickly planted to nursery stock of the best French varieties, all of which are in the best of condition, due more to labor and the climate than the character of the soil.

Mr. Gillet's specialty is "nut bearing trees," of which he has a fine variety of all kinds, walnuts, chestnuts, filberts, etc., prominent among them being the Prepatarien Walnut, many of which I saw bearing nuts at two years old.

He has a Black Spanish mulberry tree, literally loaded with the most delicious fruit; it fairly melts in one's mouth, and is about the size and shape of a blackberry, while the tree presents a very handsome and attractive appearance. No ranch should be without one or two of these trees for a table fruit. His collection of French wine grapes is also very fine and varied and through his efforts, conducted at considerable expense, we may yet have the particular grape adapted to the foot hills.

Mr. Gillet is the father of silk worm culture in California, and his conversation on that and other subjects was very entertaining and instructive and made the afternoon pass very pleasantly.

On my return I visited the vineyard of Mr. Leeman, situated about 1½ miles from Grass Valley, on the Taylor road. This vineyard is an anomaly. There were about six acres of grapes, lately grafted to Tokays, Muscats and Purple Damasens, on Mission stocks, planted some twelve years ago. The grafts were doing well and heavily laden with fruit, and yet there had not been a plow or cultivator in the ground for eight years, neither had it been irrigated except such as Nature gave it in the shape of rain. It is kept free of weeds with a common garden hoe, which is the only attention given it in the way of cultivation. Mr. Leeman's reason for not cultivating was honestly given, viz: He was "too lazy and it washed too much during the winter." It certainly was a paradox and I shall want to see more of it, especially in a very dry season. I sampled some of his 13-year-old wine made from the Mission grape which was to me a fine Sherry, though I am not a "connoisseur." Our vineyards at Colfax are doing well, though too young to make a fair showing. Some of the vines planted in the Spring of 1884 are quite heavily laden with fine bunches of table grapes.

W. G. HUBLEY,

Colfax, August 15, 1886.

The first raisins of this season were received in San Francisco, on 20th inst, by Messrs. Wm. T. Coleman & Co. They are from the vineyards of Briggs Bros. at Winters, Yolo County. These old established and well known packers have succeeded in placing on the market a raisin that, thus early in the season, is superior to the average of last year's pack.

Reception of the Veterans of the Grand Army at Occidental.

Occidental is a village situated in Sonoma county at the entrance of the redwoods on the line of the North Pacific Coast Railroad (narrow gauge), which runs along the narrow and very picturesque valley which leads to the Russian River. On each side of this valley are vineyards and orchards bearing excellent and abundant fruit.

The fruit is for the most part sold in San Francisco or sent to the North; the grapes serve to feed the cellar of Messrs. A. Lancel & Sons.

From the morning of the 6th inst. the little village of Occidental and its inhabitants began to assume a holiday air; joy was visible on all countenances, and hearts were beating in unison.

What was going to happen? The evening before the news was brought that a large number of veterans of the Grand Army would have to pass here going on an excursion to Ingram.

Quick as a train of fire in dry grass, each one wanted to improvise a reception to these veterans who had fought for the abolition of slavery.

A long table was erected near the depot, and specimens of the products of the country, fruit, wines and cigars, were brought there; fruit coming from the surrounding farms, wines from the cellar of Messrs. A. Lancel & Sons and cigars from the factory of Mr. O. Colister.

Immediately upon the arrival of the train a delegation of citizens went to present their compliments to the veterans of the Grand Army and invite them to come and partake of the refreshments that the people offered them. A large number of them accompanied by their wives accepted the invitation with pleasure.

Friend G. D. Connolly always ready when a good speech is wanted, improvised a few words, which were highly appreciated; then one of the veterans, in a moved voice, thanked the people of Occidental; three cheers were given by all present, the train started for Ingram and these new friends separated regretting not being able to prolong such a cordial reunion.

Honor to the veterans! Thanks to the people of Occidental! Thanks to the directors of the feast! A FARMER.

OFFICE OF ALFRED GREENEBAUM & CO., Importers and Commission Merchants, 111 Front St. P. O. Box 1927. Depot of the Inglenook Vineyard—Napa County red and white wines.

SAN FRANCISCO, August 12, 1886.

EDITOR MERCHANT—Sir: We call your attention to the "Dissicated Egg Albumen" for the clarification and fining of all kinds of Wines, for which we are Sole Agents for the Pacific Coast.

The "Dissicated Egg Albumen" has been proven by actual experience to be the most economical and safest clarifier known to Commerce, and we refer to the leading wine dealers of this city, who will testify to its excellence. One pound of Egg "Albumen" equals 144 eggs and is the pure whites of the eggs, dissicated by a scientific process, all the salt and acid being eliminated by evaporation, and which will give a perfect clarification without affecting in the least the color of the Wine. The formula is very simple: for a puncheon of 150 gals. red or white dry wines, thoroughly dissolve 2½ to 3 ozs. of the "Albumen" in, say a gallon of tepid water or wine, then whip thoroughly into the puncheon, let rest for 6 or 8 days, then rack off. For sweet or branded wines use from 4 to 6 ozs., same process as above. We are, yours truly,

ALFRED GREENEBAUM & CO.

Adulterated French Wines.

The amount of adulterated, artificial and blended wines sold in France can be inferred from some of the statistics of the French Minister of Finance, in regard to the spirit tax. At present all wines less than 15 degrees alcoholic strength escapes with a light duty; beyond that strength added duty is imposed. The actual strength of wine sold in consumption is only from 8 to 10 degrees, the difference representing the amount of adulteration or dilution. The Minister proposes to reduce the maximum at which higher duties are charged to 12 degrees, and by this means alone expects to raise \$2,200,000 a year. By another tax on dried raisins, now used almost exclusively for the manufacture of artificial wine, he expects to raise at least \$400,000 more. He estimates the artificial wine now produced at 66,000,000 gallons.—*Anti-Adulteration Journal*.

Big Grapes.

The Solano Republican says: A few days ago we received from the ranch of George and Beach Bassford a box of grapes, the smallest grape of which measured exactly 3½ inches in circumference and the largest 3¼ inches in circumference. They were grown in the upper part of Suisun Valley, without irrigation of course, and speak volumes for the productions of our soil and the climatic effects upon vegetation in this section. Each of the grapes resembled a plum, and, in fact, a Vacaville man had to eat some of them to be convinced that they were not a variety of fruit not hitherto known in California. The grapes were of the Muscat variety, and of the very finest flavor.

Grape Crop, Short.

Vineyardists in most sections of the Sonoma Valley complain of the grape crop being short in quantity, but all unite in saying that the quality bids fair to be better than usual. Some of the San Francisco papers, notably the *Chronicle*, have labored to create the impression that the product of wine grapes this season will be largely in excess of that of any former season, but our observation here, and reports from other wine districts of the State, convince us that the vintage will be lighter, comparing acreage, than two years ago.—*Sonoma Index-Tribune*.

A. Duvall has introduced a cheap system of sub-irrigation on his Bellevue property, which it would be worth while to put in practice throughout the valley. He has embedded, near each tree or plant he desires to irrigate, a piece of terra cotta pipe, about a foot in length. Into this pipe he pours, as often as required, a pailful of water. This keeps the roots moist for weeks, and the top soil, being dry, does not bake. The cost of the pipe is small, and the labor of thorough irrigation is in this way greatly lessened.—*Livermore Herald*.

The grape crop of Southern New Jersey this year will be seriously affected by the black rot, caused by damp and wet weather. In the low lands and in the timber country the attack has been most severe. In the vicinity of Egg Harbor City the loss will be about \$50,000, mostly among wine grapes.—*Bouffort's Wine and Spirit Circular*.



ISSUED FORTNIGHTLY ON FRIDAY MORNING BY

E. C. HUGHES & Co., - - Proprietors.
CHARLES R. RUCKLAND, - - Editor.
Office, 511 Sansome street. - Postoffice Box, 2366

TERMS PAYABLE IN ADVANCE.

One copy one year \$3.00
One copy six months 1.75
including city delivery, United States, or Canadian
Postage.

Entered at the Postoffice as second class matter

AGENTS.

ANAHEIM MAX NERBELING
CLACKERDALE, Sonoma Co. J. A. CARRIE
DIXON, Solano Co. A. R. STORY
DUNCAN'S MILLS, Sonoma Co. J. F. SLOAN
FRESNO H. C. WARNER,
Golden Rule Bazaar
GEYSERVILLE, Sonoma Co. J. O. LEBRO
HEALERSBURG, Sonoma Co. A. BALTZELL
ILWACO, Clatsop Co. GEO. HEIK
MAXWELL, Colusa Co. M. NATHAN
SANTA ANA E. F. CHITTON
SAN JOSE, Santa Clara Co. E. B. LEWIS
SANTA ROSA C. A. WRIGHT
STOCKTON WM. H. ROBINSON
WINDSOR, Sonoma Co. LINDSAY & WELCH
WYOMING, Yolo Co. E. BERG
RONOLU J. M. GAT, Jr. & Co.

FRIDAY AUGUST 27, 1886

FRESNO WINE AND RAISIN MAKERS.

We publish in this issue reports of separate meetings held by the wine and raisin makers of Fresno, the latter taking the initiative. It is a considerable time since the viticulturists of Fresno have met in solemn session, but they have been aroused to action by a grievance which they claim is unfair to the industries they represent. The fact is that Fresno is not a terminal point of the railroad, consequently those who desire to ship their products East, must first ship them either to Los Angeles, Stockton or San Francisco. It is claimed also that the rates of freight are so high as to preclude the manufacture and shipment of inferior grades of raisins, and that they are generally placed at a disadvantage in the eastern markets when competing with more favored raisin producing sections.

Some time since, on the matter being properly brought to the notice of the railroad companies, a concession was made to the Fresno wine men in the return of empty cooage. This was only right, and placed Fresno upon the same footing as other localities. We think that Fresno has good and just claims to be made a terminal point. Besides its raisins and wines, the county produces largely of fruit and other agricultural products. The necessity for the shipment of goods to other points for their reshipment East, must discriminate against Fresno producers in the way of expense. If they can show the railroad companies that they have a just claim, and that business is likely to be extended if the concession sought be granted, then we think there will be no obstacle to granting their request. But the Fresno men are making one mistake. Instead of the wine and raisin men acting as separate bodies, with separate petitions and grievances, they should unite and push their claims by joint action. Then they are much more likely to be successful. The point in question is of as much interest to the wine as to the raisin makers, and the mere fact that the latter made the first move should not have caused a counter-move by the former. We trust that the request of our Fresno friends will be granted, as we think it should be, but we should prefer to see joint action take the place of antagonism.

EASTERN AND WESTERN MERCHANTS.

San Francisco has lately been subjected to the pitiable spectacle of a few selfish men here, calling themselves merchants, meeting in solemn convolve to discuss the advisability of excluding Eastern merchants from doing business here. It is astonishing that such serious deliberation could ever have taken place upon such a subject. It redounds but little to the credit of the commercial interests of San Francisco that a few grab-balls should complain of competition in trade. The only thing we can admire about them is the honesty of their open acknowledgment that they desire to keep everything in their own hands which are ready to grasp all that is within reach.

But fortunately there are others to be consulted in this matter. The retailers have a word to say, and the general public, the consumers upon whom our trade mainly depends, are also directly interested. The exclusion of the representatives of Eastern houses from carrying on a lawful business in this State means a reversion to the order of things that existed twenty years ago when California was isolated, so to speak, from the rest of the Union. Then we were dependent for supplies upon ocean carriages, which was not so quick or so frequent as it is at present. These were palmy days for the old merchants who controlled the market and did not need any assistance from travelers but sat calmly waiting in their stores for the business which they knew must come to them and at their own prices. These were the "good old days" that are not likely to occur again. The merchant then was not a smart business man. He had not to exercise his brains or see much further than the dollars on his desk. He could see far enough to pick them up and that was sufficient.

But times have changed. The old merchant has generally jogged quietly along, forgetful of the fact that he was not so young as he used to be and that younger and more energetic men have been growing up beside him, and are gradually ousting him from business. The reason is very plain. The younger man has grown up and made his start in life when business were not such a rosey hue as of yore. His intellect has been sharpened and his brains have become trained to a keen insight into ways and means. He has studied economy in his youth and benefitted by that study. Consequently in a few years he has caught up with the veteran and a few years more have found him ahead in the great struggle of commercial competition. Accustomed to let business come of itself, the old representative has awakened to the fact that business can also go of itself. Hence the trouble. We have now in this city a live, keen, pushing and energetic class of young merchants who are a credit to any commercial city. We have also some relics who have not kept up with the times, who have been outstripped in the race of life and whose places in business to-day "never would be missed." Some of the old houses have closed their doors, let the others, who are growers, also "shut up."

Let us suppose, for instance, that the Eastern houses and their representatives were prohibited from doing business. Prices would advance immediately. The consumer would suffer. The public generally has gained by the competition. San Francisco merchants of the olden times have undoubtedly been the losers. They have lost the Los Angeles and other Southern

trade and they have also lost considerable Northern trade. It is their own fault. They have interfered with the business of the retailers by doing such small transactions as should be left for the retailer. Very naturally then the retailer will purchase elsewhere rather than continue to support the supposed wholesaler who competes with himself in the retail business and who does not disdain to "break a package" where there is a dollar in sight. The Eastern manufacturers have their heavy stocks, and consequent expenses to maintain just as much as the California man. Our merchant sends out his travelers, so why not the Eastern man. Why should not a Los Angeles or a Portland merchant complain because a representative of a San Francisco house attempts to interfere with their business. He has just as much right to do so, but he has not yet become so selfish. He takes good care to keep up with the times and push his own business so that he need not fear competition. And what is more he treats his customers well so that they have no cause to leave him.

If the Eastern merchants were to retaliate in this connection, then what an outcry would be raised. They might with equal justice attempt to prevent the representatives of California wine houses, for instance, from doing business in the East. They might say that our wines should not compete with Eastern wines. They might as well try to boycott our fruit or our raisins, for the action of the San Francisco merchants is neither more nor less than an attempt at boycotting. It may be said that our fruit, wine and raisins are needed in the East. So are Eastern goods needed here. If they were not then we would not buy them and there would be no occasion to boycott the Eastern representatives. They might take it into their heads to boycott the representative merchant in turn, and refuse to sell him the articles that he needs daily for a continuance of his business. This shoe would pinch so much that he might not like the putting of the boot on the other leg. But it would serve him right. The consumers need Eastern goods and intend to have them. Further they want them as cheaply as possible. Competition in trade is a good thing. It enlivens us; stirs us up and brightens our intellects if they are not too dull to take the polish. There is many a young man engaged in business in this city who has more commercial knowledge in his little finger than all the combined wisdom of the "fathers." These young men, whether from the North, South or East will settle here if they can do good business. They increase the population and create further demand in other lines of trade than their own. Consequently they are beneficial both ways. If they have the advantage of a keener perception of the requirements of trade, and are quick to avail themselves of it, then we say, let them remain here and prosper. There is room for all but the grumblers, whose petulant exhibition of selfishness is both discreditable and disagreeable.

A private letter from Anaheim, to a wine merchant in this city, reports the grape crop in that section as a total failure. The prospects were exceedingly favorable for a large yield until the grapes were half-grown, when they received an unaccountable set back and have not since developed any further growth. In other sections of Southern California, the crop is reported both large and good.

THE RAISIN CROP.

The outlook for this season's raisin crop is a good one as far as quantity is concerned. From all parts of the State we learn that the yield promises to be enormous and much larger in fact than that of any preceding year. It is impossible to obtain an exact estimate of the pack but it will probably be in the neighborhood of 550,000 boxes or about 100,000 boxes larger than the pack of 1885 which was the banner year in the raisin history of California.

With the prospect of an unusually large crop it is only right to study the market for the pack, its requirements and possibilities. In the first place the raisins must be packed according to the requirements of the trade. We must pack according to the recognized trade terms in the East where lies our principal market. There should be three grades of raisins, the Delicias, London Layers and Layers. The only other grade should be packed as loose Muscats and should average in quality between the grades of Layers and London Layers. All other grapes, not up to this standard, should be sold in fifty pound packages as dried grapes. The loose Muscats should be raisins of good quality that have fallen from the bunches of the Layers and London Layers, and not the refuse of a packing. The good name of California raisins has been steadily growing in favor, thereby causing an increased demand, and carelessness in packing should not be permitted to cause a retrograde step.

This is the more necessary because the California pack has been increasing out of proportion to the consumption, and every opportunity must be made available in order to secure a market for this year's pack. Packers must be especially careful to pay attention to every packing lest neglect or carelessness in one packing should ruin not only the whole of that individual pack, but also bring discredit upon the whole California raisin crop. The facilities for handling the crop are now better than ever they were and have been improving year by year, therefore there should be no excuse for a deterioration in the quality of the pack. In the East, our principal market, we come in contact with the imported raisin. The Eastern market is a most critical one and goods are sold there strictly upon their merits. The matter of curing raisins can only be learned by experience, and our principal packers have now acquired such a degree of proficiency in curing that they have little to fear from foreign competition. It would be well for those who are packing this season for the first time to consult their more experienced neighbors both as to curing, grading and packing. This would prevent many grievous errors and help to maintain the good reputation of California raisins. The market is at present almost a bare one, last season's pack having been pretty thoroughly cleaned up, and we anticipate that our best raisins, well cured and well packed, will again bring as high prices as the imported raisin.

The crop of 1886 is estimated by W. T. Coleman & Co., at over 600,000 boxes distributed as follows:

	BOXES.
Riverside.....	11,000
Fresno county.....	125,000
Santa Ana and Orange.....	150,000
Other places in Los Angeles and San Bernardino counties.....	50,000
Solano county.....	80,000
Merced, Modesto, Madera, Chico and Yuba counties.....	50,000
Other counties.....	35,000
Total.....	600,000

ALCOHOL AND WINES.

In an article of Hidalgo Tablada's journal *Wines and Olive oils* (*los vinos y los aceites*), it is stated that the Spanish wine trade paid for German alcohols in 1885, the sum of 57,000,000 of pesetas or \$11,250,000 dollars. The necessities of alcohol for fortifying export wines are enormous in Spain. At the occasion of the revision of the French tariff, the grape growers are awakening to the fact that the great resources of the vineyards of Spain for supplying the needed spirit, would allow the disposal of the national product and satisfy the customers of France, with regard to the quality of the fortified blending wines shipped by hundreds of millions of gallons to France, where the difference between grain and grapespirit added to these wines, both commercially and hygienically, is better understood than anywhere else. The spirit from Germany is only to a small degree the product of grain. It is mostly potato spirit rectified to perfection. Cheapness is the prime reason for its importation. The grape growers find for their wines an easy sale, and do not particularly care to convert it into brandy, this being less remunerative. The prodigious increase of new vineyards in Spain, summing up into a figure many times the area of the whole of California vineyards, will probably in a few years oblige the Spanish vintners to give more attention to distilling.

The Government of Spain seems to comprehend the matter, for one of the paragraphs for the deliberations of a Viticultural Congress, which was held in Madrid in June, was in the Royal order convoking that Convention, worded thus:

3. Efficacious means to limit the importation of alcohols. Is it possible and convenient to apply a prohibitive system to them? Will distillation of grape pomace be the better result?

Oils and Olive Oil.

The reduction in the tariff of Spanish Customs on some articles called raw materials, has caused a terrible competition with olive oil in Catalonia.

According to a merchant of Barcelona, the prices in that market of some of the concurrents in 1883 and 1885, will give an idea of the difference

	in 1883	in 1885.
Cocoonut Oil	91 pesetas.	55 pesetas.
Palm "	100 "	48 "
Tallow	115 "	54 "

Marseilles, the same author asserts, imported in 1882 2,776,800 kilogrammes of cotton seed oil, and, in 1885, 6,929,874 kilos.

(To what purpose? We presume California olive plauting might be extended.)

Formerly, the Barcelona man states, olive oil was used in the wool industry. Now olive, made of tallow, substitutes it. In Malaga the mean price of olive oil is 75 pesetas for the 100 kilogrammes. Cotton seed oil costs 42 and pays 23 pesetas of duty, total 65. There is a large importation of American cotton seed oil in Barcelona, and the olive oil growers are alarmed. Protection not only insures against fraud, but it is the safeguard of national industries. The Spaniards have a practical lesson of this truth.

In a report on viticulture in the Caucasian Colonies Tempelhof and Orbeljanowka, these words occur, which speak volumes for the instruction of the adversaries of wine: Our producers consume of course a part of their production. Fever in the Colonies has in consequence nearly totally disappeared.

A VALUABLE OFFICIAL.

Political changes in this country often cause the loss of the services of very valuable officials. Such is the case in the San Francisco Postoffice at the present time. There is not a business man in this city who has not come in official contact with Mr. William C. Dougherty, the Deputy Postmaster. His name in fact is a household word. We venture to say that there has never been a more conscientious, painstaking, upright and efficient gentleman in the service of the United States Government. Mr. Dougherty has been in the San Francisco Postoffice Department for more than twenty years. He has always been at his post, always ready by day or night to attend to matters connected with his department, and time and time again working far longer and far harder than many men not half his age would have done. He has always been zealous in the discharge of the numerous and difficult duties consequent upon his position. It is no light matter to manage a Postoffice such as ours, which is overcrowded and most unsuited for the purpose for which it is utilized. Besides the continued and endless worry of arrival and dispatch of mails, Mr. Dougherty has always been ready to receive visitors, to enquire into their complaints, and afford every possible convenience and consideration to the general public. We have had business relations with Mr. Dougherty, other than those connected with our press duties. Therein we have had an opportunity of judging of his official fitness. His prompt action and foresight has frequently been the means of saving days of delay in the delivery and transportation of transoceanic mails. The arrival of a steamer at any hour of the day or night always finds Mr. Dougherty promptly on hand, and often doing work that might have been done by subordinate officers. But he preferred to undertake such work that, should any error occur, he might himself bear the blame. The brunt of the worry and business, incident upon the large transactions daily occurring in the San Francisco Postoffice, has fallen on his shoulders, and his successor will find it a very difficult task to fill the place left vacant by Mr. Dougherty's removal. It is a hardship that he should be removed after more than twenty years of honest and conscientious labor, but such is the course of politics. We thank Mr. Dougherty for the many courtesies that he has extended to us, and feel that we are under great obligations to him for his willingness and promptness in rendering much valued and appreciated assistance.

We publish in this issue a full report of the meeting of the Grape Growers' Association, held last week. It will be nearly five months before another meeting is held, which, we think, is a mistake. These meetings are interesting, and, to be useful, should be more frequent. The matter of further viticultural legislation, and the provision of necessary assistance therefor, is a subject that should be dealt with within two or three months.

Some interesting information relative to the grape crop was given at last week's meeting of the Grape Growers' Association. From the facts there stated and other information received, we have no reason yet to change our estimate of this year's vintage, which we placed at 16,900,000 gallons.

Subscribe for the MERCHANT.

OUR PACIFIC TRADE.

The establishment of an agency of the Canadian Pacific Railroad in this city naturally leads to a consideration of its objects and how they will affect the trade of San Francisco. California's commercial relations with foreign countries can only be maintained upon the highway of the Pacific, which has hitherto been regarded as our sole property and possession. American companies and American steamers have transacted all the trade with China and Japan, Honolulu and the Australasian Colonies. Hence the advent of a foreign competitor in the field may be regarded with some degree of alarm, and a sort of infringement of our rights. For Americans have so long maintained the commercial supremacy of the Pacific that they have begun to regard it as one of their rights which should not be interfered with. But the high seas are open to all, therefore competition cannot be denied.

The construction of the Canadian Pacific Railroad is the strongest blow that has been dealt to American Pacific trade, and will mainly affect San Francisco. The Canadian line being an accomplished fact, it of course is the intention of its constructors to place it upon a paying basis. This will best be done by attracting freight in its direction through a connecting system of ocean steamship services. The first of these will undoubtedly be to China and Japan, but it is doubtful if this will affect our trade with those countries to any great extent. It will benefit the Eastern portion of Canada, and establish a quick route for tea shipments to England, but it is hardly likely to interfere with our own sea and overland tea traffic to New York. If the new line will open up a new country for Chinese immigration then there will be no complaints from California, which would like to see the steamers run here and do a large export trade from this State in Chinese. We shall derive benefit from our connection with the Canadian Pacific through finding another and more regular outlet for our fruits, canned goods and general agricultural products.

The next proposition of the Canadian Pacific is to establish a direct line of steamers with Australia, calling at Honolulu. This will be of value to Honolulu, increasing its importance as the main commercial center of the Pacific. It will also establish a trade between Canada and the Colonies, but not to any great extent, neither will the new route be a very favorable one generally for tourist travel. It will not interfere with the trade between San Francisco and the Colonies, as our exports are not goods that can be obtained from Canada, consisting of a class of American manufactures that we alone can supply. Our imports from the Colonies, on the other hand, cut but a small figure in this trade owing to our high tariff. About the only Australian commodity that we could use is wool, and there is little prospect of the present prohibitory tariff being so reduced as to permit of the importation of Australian wools in competition with those of America. There are some grades of Colonial wools that are not grown here which could be advantageously utilized in mixing in the manufacture with the American wools, but the protective spirit is at present too strong even to admit of a concession being made in such grades. Hence we may look for no evil results from any Canadian Pacific competition in our Australasian trade.

Regarding the transportation of the Australian mails to England we feel very confident that no change will be made in the direction of the more northern route. We fail to see how such a service could be more expeditious than the present one via San Francisco. The ocean trip is longer and would exceed the time gained in the shorter trans-continental service. Further we may look shortly for a considerable shortening in the existing American overland time to equalize matters with the Canadian line. It is probable that within a very short time there will be a reduction of several days in the period within which the mails are transported to or from the Colonies and England. The San Francisco route is the quickest and most popular in New Zealand, and if any change be made it will be to shorten the sea voyage and not to lengthen it. The time of the sea trip cannot be much reduced, but a reduction, effecting a considerable saving, can be made on land. New Zealand has three mail services with England, one direct, one by Suez and the other by San Francisco. That the last named is the quickest for New Zealand is shown by the following table giving the average number of days in which the mails were delivered by the different routes for the current year. Thus:

	S. F. Route.	Direct.	Suez.
London to Auckland ..	37.85	17.92	16.58
London to Wellington ..	39.16	45.61	47.31
London to Dunedin ..	40.92	41.54	46.65
Auckland to London ..	37.15	12.15	16.59
Wellington to London ..	39.34	10.00	16.00

Sir Julius Vogel, Postmaster-General of New Zealand, in his last official report, speaks very favorably of the San Francisco mail service as it now exists. After referring to the withdrawal of Mr. Pearce from the original agreement, only a fortnight before the commencement of the contract, and the prompt action of the Oceanic Company in permitting their steamers to run through at once and thus avoid delay, Sir Julius Vogel says "what at one time threatened to be a serious hitch was therefore overcome without detriment to the service, which, it may be added, is being performed by the three vessels in a creditable manner."

He further continues: "The Alameda and Mariposa have done excellent work. They are boats of a superior type and more than confirm the favorable reports made to this office respecting their passenger accommodation and speed. There has been a considerable increase in the passenger traffic, which will no doubt expand as the boats and the greater attractions of the route become better known." Again we find in the same report: "The San Francisco service is in the unusual position of having a credit balance on the year's operations. After setting the receipts against the expenditure, there is a balance of £422 12s 4d on the credit side, compared with a debit of £7,736 10s 7d the previous year."

With its quickest mail service established on a paying basis, it is hardly likely that the New Zealand Government will care to experiment upon an unknown route with a longer sea voyage, which is always objectionable, and it being impossible to shorten the time to less than that of the existing San Francisco service, which, on the other hand, can be effectually shortened by several days.

Messrs. Chas. Meuncke & Co., of 311 Sacramento St., have been appointed sole agents for the Pacific Coast, for "Gold Lack, Sec." the famous champagne of Messrs. Dantz & Goldmann, District of Ay, Marne, France.

WORK AT THE UNIVERSITY.

Professor Hilgard's latest Bulletin contains the following suggestions to students and to those who may send grapes or wines to the University:

Students taking this course, which may be extended until Christmas recess, will, during the vintage season, occupy the greater part of their time in actual work in the viticultural laboratory, under the direct instruction of Assistants Jaffa and Colby. In addition, from two to four lectures on the principles and practice of vinification and wine analysis will be given them by Professor Hilgard.

It is very desirable that students taking this course should have some general knowledge, at least, of chemistry and physics; and some preliminary experience in winery practice will be very advantageous.

Applications for this course should be addressed as soon as possible to Prof. Hilgard, at Berkeley, in order that the proper laboratory arrangements may be made before the brunt of the vintage comes. The lecture course will begin at the opening of the University session, September 17th, but, according to the season, the laboratory work may begin sooner, and students applying will be promptly notified of the fact. Instruction is gratuitous, but a charge, varying, according to actual breakage of apparatus and use of chemicals, from a minimum of one dollar per month upward, is made to laboratory students.

Grape growers and wine makers are invited to send sample lots of grapes for analysis and experimental wine making. As a rule, each grape variety will be made into wine separately; the analysis of the must is made on one day of crushing, and will, if so desired, be at once communicated to the sender. That of the wine must, of course, be delayed until the latter has acquired a reasonable degree of maturity, after several rackings. But reports on special points that may be ascertained sooner will be sent if desired.

Experimental blends will also be made either in accordance with the request of growers, or such as examination or previous experience may seem to render desirable.

Ready-made wines or brandies of which the analysis or other examination is desired, will receive attention in the order of their receipt at Berkeley.

All work is, of course, done gratuitously, transportation charges being ordinarily paid by the sender. It is hardly necessary to say that, other things being equal, the larger the quantity of grapes worked, the more certainly and nearly will the result correspond to that which may be expected on the large scale. In the case of rare grapes, a few pounds, carefully treated, may be made to give fair results; but it is very desirable that the amount sent for experimental working, should in no case be less than that which will yield five gallons of finished wine—say (considering the losses consequent from transportation, amounts required for analysis, frequent racking, etc.) 100 pounds; but twice that amount is preferable, and of some of the more important varieties, 20-gallon lots will be made this season.

Wine grapes, being usually very juicy and of delicate texture, should be packed with especial care in small shallow boxes holding not exceeding 20 pounds each, and preferably in layers with grape leaves between. In no case should packing paper be used, as it causes a rapid production of mold, spoiling both the grapes and the ex-

periment. Persons not having proper boxes, may have them sent to them by express from the laboratory by giving timely notice. Send promptly advice of shipment, whether by express or freight. Address University of California, care of Prof. Hilgard; if by express, to Berkeley; if by freight, to West Berkeley depot.

BOAKE'S LIQUID ALBUMENS.

We desire to call the attention of our *Wine Growers, Wine Merchants and Liquor Dealers* throughout the State to the above excellent clarifiers, distinguished alike for their reliability and purity, and for their convenience, simplicity and readiness for use. No higher compliment and acknowledgment of their superiority and effectiveness as Clarifiers, Preservers, Correctors and Restorers of wines could have been paid to these Albumens than that pronounced unanimously by the Special Committee of that critical assembly, the International Exhibition of Wines, etc., etc., at Bordeaux, France, granting to Messrs. Boake & Co., after a thorough practical trial, in competition with all other similar articles, the highest award of the *Grand Gold Medal* and the great Diploma "for excellence, reliability, effectiveness and purity." Messrs. Charles Meinecke & Co., Sole Agents on the Pacific Coast, having received a new shipment of these renowned Albumens, we refer our readers to their advertisement on page 159 of this issue.

Wines at Washington.

We are pleased to note the fact that Mr. F. Pohndorff, who has so long been associated with California wines, and has contributed so largely to the viticultural literature of the Pacific slope, is permanently located in Washington City, in connection with that interest. Having entered into business relations with Mr. H. W. Crabb, proprietor of the To-Kalon vineyards at Oakville, Napa County, California, a grower of the highest reputation, Mr. Pohndorff has established wine vaults in the capital city and prepared himself to serve the best types of California wine, both to the retail and wholesale trade, as well as to the private consumer. Surely no better point of distribution could have been selected than Washington, and we bespeak for Mr. Pohndorff a recognition by the lovers of native wine commensurate with his ability to present the claims of these goods to the public.—*Wine and Spirit Trade Review*.

The Vintage.

[St. Helena Star.]

From reliable information gathered from various sources, we conclude that the grape crop in Napa Valley this year, taken as a whole, is a fair average crop; not nearly as large as at first reported, but still quite satisfactory in point of quantity to all growers. The quality is said to be excellent and is all the better because the vines are not burdened by an over-production. Wine making will commence in from two to three weeks, and the vintage bids fair to be an early one—grapes are already colored and are fast ripening. Prices are still uncertain—some sales are being made at \$25 and \$26; but there are those that claim these figures to be higher than are justified. We are not in a position to judge as to this last point.

Mildew Peronospora.

[G. Arnaud in the Monticello Farmer.]

In a recent letter of the French Minister of Agriculture to the Professors of Agriculture in the grape growing departments, the mixture of sulphate of copper and lime is recommended for destroying grape mildew (*Peronospora*) both in a liquid and a dry state. The preparation for the liquid is made by dissolving a pound of sulphate of copper in a gallon of water. Then, in a separate vessel, applying a quart of water to two pounds of unslaked lime, and mixing the contents of the two vessels together. This mixture produces a bluish-white precipitate which stays in suspension in the liquid and holds a combination of copper nearly insoluble and very finely divided. This is spread on the leaves, not on the fruit, with small brooms, or, what is better, with a pulverizer.

A vine grower of Burgundy has made the same preparation in the form of a dry powder, and applies it with the sulphuring box. For making the powder, he dissolves three pounds of sulphate of copper in a gallon of water, then he pours the solution on air-slaked lime, surrounded by unslaked ashes; 24 hours after he adds powder of sulphur to the lime and he mixes the whole and sifts it through a fine sieve. This powder may be made several months before using. The advantage of the powder on liquid is that without carrying water in the vineyard the distribution on the leaves can be made quickly and perfectly, and it furnishes in a very fine state of division a combination nearly insoluble as well as the liquid mixture. A woman can treat in two hours over one acre. The materials for the powder are:

22	pounds	air-slaked lime,
4	"	sulphate of copper,
2	"	sulphur,
11	"	water,
3	"	ashes.

ROT (PHOMA UVICOLA.)

This disease has been observed in America since a long time and in France last year for the first time. It has been described in this paper many times. Everybody knows it. It is a fungus growth. No remedy has been found yet. The only thing to do is to try to prevent it. I read somewhere that a vineyardist one year suppressed carefully all the fruit from his vineyard before the appearance of the rot. The fungus having nothing to prey upon, has been starved to death and disappeared, and the subsequent year a superb crop without rot has been gathered. Mr. A. W. Pearson of Vineland, New Jersey, prevents it in suppressing carefully every berry which shows a sign of rot, and he succeeds every year to control it and the rot has quite disappeared from his vineyard.

In France this year a preventive treatment has been made under the direction of Prof. Foex, in the vineyards of Val Maire, where the rot has made its appearance last August. The soil of eighty-seven acres has been scraped to a depth of three inches, then dried, then placed in kilns and turned carefully and systematically. The wood from the pruning of the vineyard has been burned on the spot. The stumps of the vines and the posts have been blazed with a special lamp, as the enameller's lamp, then washed with a solution of ten per cent of sulphate of copper. You see that all precautionary measures have been taken, and it is to be hoped they will not be useless. Why should not our American grape growers do the same thing?

Interesting Topics.

At a meeting of the vine-growers of Livermore Valley, the questions of "How many tons of grapes will our vines produce this season," "How can we dispose of our grapes so as to realize the best possible prices," "What is the average cost per acre of the necessary care and cultivation of a vineyard in this valley," and other matters of interests to vineyardists, were discussed. The conclusions arrived at were: That the crop of the valley, for the present season, would probably fall short of 1,000 tons; that the greatest possible profit could only be derived by the making of wine from his grapes by each individual grower, as by so doing he would be sure to receive full value, and not be left entirely at the mercy of the winery men. Estimates of the cost of care and cultivation varied from \$18 to 25 per acre, but all agreed that grapes could not profitably be produced in this valley at \$20 per ton—the price at present being offered by the wineries. Mr. Clarence Wetmore was present, and stated that the estimate of the SAN FRANCISCO MERCHANT placing the probable yield of the State at 16,000,000 gallons, was, in his opinion, an over rather than an under estimate.—*Livermore Echo*.

The California Wine Crop.

A representative of the *Review*, who has just visited all the principal wine districts of the State, writes us, under date of the 1st instant, that all indications point to the fact that the wine crop of the current year will probably be somewhere between 15,000,000 and 16,000,000 gallons. This view of the case is confirmed by the reports which have been recently received by the State Viticultural Commission. At the opening of the session all indications pointed to a much larger yield (at least 20,000,000 gallons), but the recent unfavorable weather has caused considerable damage, and the crop will be materially reduced. As to the quality, our advices are more favorable, and while there will not be so much wine produced as was anticipated, it is believed that the grade of the product will be as high or higher than that of any preceding year.—*Wine and Spirit Trade Review*.

Hemp for Phylloxera.

Upon this subject, which has formerly been referred to in the MERCHANT, the *Country Gentleman* says: They recommend, in South Russia, hemp as a means against the phylloxera. It is sufficient to plant the hemp around the vineyard, and place it near the infected vines. The insects are attracted by the strong odor of the hemp, the roots of which prove to be poisonous for them. The following experiment will show the efficiency of this means: Plant in the same barrel an infected vine and a hemp plant. In a few days the vine begins to revive, and if you pull the hemp carefully out, you will find its roots covered with phylloxera.

The hot weather continues, and the green grapes on farms in the upper part of Sonoma Valley continue to be burned and blighted. Samples shown us seem to be scalded, causing the juice to run out over the bunches below, when those most exposed to the sun's rays become dry and parched, rendering them utterly worthless. The percentage of damage that will result cannot be estimated.—*Sonoma Index-Tribune*.

CALIFORNIA WINES AND BRANDIES.

San Francisco,
121 Market Street.

Astoria, Oregon,
Flavel's Wharf.

Chicago, Ill.
91 Michigan Avenue.



New York,
71 Hudson Street

London,
4 Bishopsgate St.,
within E. C.

Liverpool,
54 Drury Buildings.

WM. T. COLEMAN & CO.
71 HUDSON STREET NEW YORK CITY.

ALSO AGENTS FOR
ALCOHOL, WINE AND SPIRITS.

"French Cognac."

(Daily Report)

Now that there are a number of well-known brands of pure California brandy on the market the foolish custom of paying high for so-called French cognac will soon die out.

It has long been known that the production of grape brandy is yearly diminishing in France. In 1875 about 11,000,000 gallons were made. In 1885 the production had decreased to half a million gallons! This amount is almost all needed for home consumption and exportation to one or two countries, principally Russia and England. Hardly any French brandy reaches the United States and cognac in use in this country, and sold with so many artifices, designed to impress the buyer with its purity and value, is artificial trash of the most vicious character.

It is not the product of the grape at all. It is made of beets and potatoes, and is flavored with what is known to the trade as "essential oil of wine leeks." This stuff is made from certain fatty substances, among which are cocoa butter and castor oil, after being treated with nitric acid, a certain amount of mythylic and other alcohols being added to impart the requisite vinous flavor to the compound.

The cheapest spirit made in Europe is produced in Holland from potatoes. This is shipped to London where it is made into "brandy." Then it is sent to France, where it is sent to every market of the world, bearing a fine label and capsule.

Surely our pure grape brandies should supersede such stuff as this: and they will when the merits of one and the demerits of the other are understood by the public.

CALIFORNIA Concentrated GRAPE MUSTS

FOR THE SEASON OF 1886 I WILL CONCENTRATE MUST OF GRAPES FROM THE CELEBRATED NATOMA VINEYARD.

THOS. D. CONE.

Manufacturer of California Concentrated Grape Musts

OFFICE 640 CLAY ST., (Up stairs),
San Francisco, Cal.
Works at Honestrad, near Sacramento, Cal.

WINE MEN!

TAKE NOTICE!

ST. HELENA, July 8, 1886.

I have on hand at my Cellar at Bello Station, 2 1-2 miles south of St. Helena, 15,000 Gallons of White Wine, the vintage of 1884, Riesling, Chasselas and Burger; also, 35,000 gallons Riesling, Chasselas, Burger and Zinfandel Claret of 1885, which I offer for sale cheap to make room for this year's vintage.

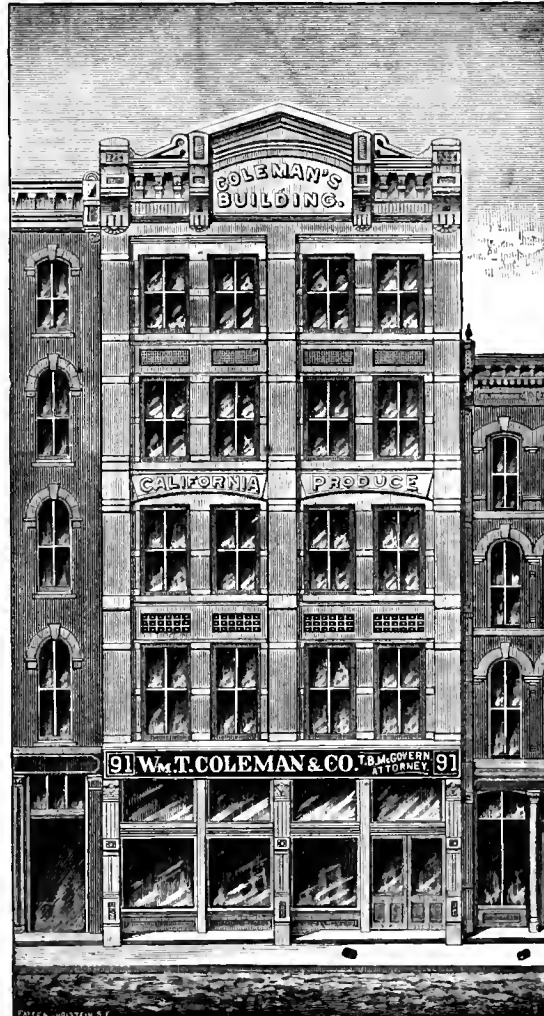
J. H. McCord.

AGENCY OF

WM. T. COLEMAN & CO.

91 MICHIGAN AVENUE, CHICAGO.

California Products a Specialty.



California

Canned

Fruits,

California

Dried

Fruits,

California

Raisins,

California

Wines,

California

Oranges

COLUMBIA AND SACRAMENTO RIVER SALMON,

—AND ALL—

Pacific Coast Products Suited to Eastern Trade.

CONSIGNMENTS SOLICITED, AND ALL CORRESPONDENCE

PROMPTLY ATTENDED TO.

T. B. McGOVERN, Manager.

THE AMERICAN WINE TRADE.

[Wine Trade Review.]

A report which has just reached us, on the production and consumption of wine in the United States, suggests some practical reflections. Why the United States, especially California, has not made greater progress in viticulture, it is rather difficult to explain, seeing that at one time it was looked upon as the El Dorado of *vineyards*. Master Ralph Lane, the head of the first colony established in Virginia, wrote to England in 1583 that he had found in that country "grapes of such greatnesse, yet wilde, as France, Spain, nor Italie have no greater." Sir Walter Raleigh, a connoisseur of wine as well as of the "fragrant leaf," reported that he found two kinds of grape wild, one of which was of "luscious sweetness." It is known that the "London Company" made an attempt to establish a vineyard in Virginia prior to 1620, and met with so much success that ten years later they imported skilled viticulturists from France, but these, it is stated, helped to spoil the industry rather than otherwise, as the treatment required was radically different from what they had been accustomed to. William Penn, likewise, was unsuccessful in establishing a vineyard near Philadelphia in 1683, and Andrew Dore had somewhat similar experience in 1685. However, wine production in various parts of the States, especially among the French settlers, steadily took root, for in 1840 we find the census return giving 124,000 gallons as the production of that year, of which 60,000 gallons were produced in California. Comparing these figures with the estimated statistics for the current year we get some startling facts. Instead of the 124,000 gallons of 1840, the United States now produces twenty-three and a half million gallons of wine annually, of which California produces fifteen million gallons, in comparison with the 60,000 gallons of forty odd years ago. The demand is also greater. In 1840 the average consumption per head of the population was one-half gallon; it is now seven-eighths, of which one-eighth is imported. This is a greater drinking capacity than we can boast of; in fact, as regards wine we are the lowest in any among nine of the principal countries of the world of which mention is made. France heads the list with an annual consumption of 30 gallons per head of the population. In Switzerland it is 11.25; in the River Plate Republics, 11; in Austria-Hungary, 5½; in Germany, 1½; in Belgium, 1.92; in the United States, .71; in Holland, .65; and in

Great Britain, .50, or half a gallon, despite the elaborate fiscal inducements held out by Mr. Gladstone for the past thirty years. The practical consideration from these statistics, as far as the United States is concerned, is where will production end? This is a serious question for France, for the United States at present is one of her best customers. If California make the same progress in viticulture during the next twenty years as she has in the past, it is certain that she will not only be able to supply the home market, but will also be able to compete abroad. France and California, curiously enough, are similar in respect of area and agricultural resources; but it is stated that the territory available for viticulture in California is much greater than in France.

We may quote the following from the report above noticed: "Be this as it may, California is *par excellence* the wine country of the future. And for us the matter is of some importance. We are interested in good wines. Though our capitulation consumption may be small, we possess perhaps the greatest number of wine connoisseurs in the world, and California for these and many besides, is the land of promise. The French production may be increasing in bulk—we are told it is—but nevertheless there is an unpleasant mention of phylloxera in current reports, despite the sulpho-carbonate of potassium treatment; and we have further to reckon with the ravages of mildew, which caused a considerable deficit in the French vintage last year, and threatens similar consequences this season to a very unpleasant extent. Besides, it is an absolute fact that the production of really good Champagne and Sherry is strictly limited. No expenditure of money will bribe stern Nature to yield one pipe or case more than she has ordained. To unexplored regions hope wanders, and the only oasis within the realms of possibility is situated in or about the Sacramento Valley. The Yankee, of course, will at once put in a plea for Ohio. The average American believes that favored country can grow anything, from a President to a rhinoceros. We do not dispute the Ohio vintage. It is the best the older States can produce, but it cannot compare with the clear, full-flavored, luscious red liquor pressed from the grapes that ripen in Lower California. Nor can any of our own colonies compete in this respect. If Cape wines could not compete with Spanish wines in equal fiscal systems, it is certain they would have no chance against the choicest output of California. To Australia we are disposed to give every

encouragement, but to put it very mildly, unless improvement be so radical as to mean a different article altogether, the heady Australian wine is not likely to become a prime favorite in this country. Next to flavor, the absence of alcohol is one of the chief charms in wine; and when we come to 40 or 50 per cent of alcohol, as we sometimes do in Australian wines, it is nothing better than proof spirit mixed with fruity syrup. The exhilarating gas of Champagne is entirely wanting. One thing which will favor American production is the *ad valorem* customs duty, now equaling nearly 91 per cent. Up to 1883 it was only 71 per cent, and the increase has reduced the importations by one-half. In 1883 7,795,000 gallons were imported; in 1884 only 3,907,000 gallons. The difference must be made up somewhere, most probably in increased inland vine culture—although a great fillip has undoubtedly been given to those abominable raw grain concoctions commonly sold in New York barsalons and boarding-houses. The nomenclature of these 'drinks' is legion. To the ordinary 'Sherry cobbler' and 'pick-me-up,' German immigrants have added corn spirits of various kinds. All the different nationalities follow their own proclivities in this respect, and the heathen Chinese has appeared on the scene with absinthe and opium drugs, duly recast on a Yankee pattern. Amidst all this desert of adulteration and fraud, the one bright fact is the great natural capacity of the country. This in the end will tell. Just as the Ohio breeder has supplanted the Texas steer, and Chicago hams the old prairie hog, so will first-rate wine, and probably unexceptionable spirits, yet come from the United States."

WINE MAKER
WANTED.A Theoretical and Practical Wine
Maker is wanted by

J. D. B. STILLMAN

—OF—
LUGONIA,

SAN BERNARDINO CO.

The applicant must send references as to character and qualifications of well-known viniculturists, to whom letters of enquiry may be addressed.

CALIFORNIA VINEYARDS.

KRIG CHARLES, Krug Station, St. Helena, Napa Co., Cal. Producer of fine Wines and Brandy.

J. C. WEINBERGER, Manufacturer of Wines, near St. Helena.

H. W. CRABBE, Wine Cellar and Distillery, Oakville, Napa County.

SAN FRANCISCO WINERY, RUEFF & REED, Business Proprietors, 116½ Eighth St., S. F., Cal.

THE CUPERTINO VITICULTURAL SOCIETY

Meets on the evening of the third Thursday of each month at Mr. Montgomery's.

J. C. MERRITHW President
J. D. WILLIAMS Vice-President
R. C. STILLER Secretary
Please address all communications to R. C. STILLER, Cuberville, Santa Clara Co., Cal.

ESTABLISHED IN 1860.

ALL WINE MAKERS

Should drink the

PURE BELMONT

— HAND-MADE —

SOUR MASH WHISKY.

Supplied in lots to suit by

JAMES CIBB, 617 Merchant St.

HERRMANN & CO.,

HOP MERCHANTS.

Importers and Dealers in

CORKS, BREWERS' AND BOTTLETS' SUPPLIES,
SODA WATER AND WINE DEALERS' MATERIALS.

ALEX. FRIES' & BROS. COGNAC OILS,
ESSENCES AND FLAVORS.

313 SACRAMENTO ST. San Francisco.

THE RISDON

IRON AND LOCOMOTIVE WORKS.

Cor. Beale & Howard Sts., S. F.

W. H. TAYLOR, Pres't. JOSEPH MOORE, Supt.

BUILDERS OF STEAM MACHINERY

IN ALL ITS BRANCHES.

Steamboat, Steamship, Land Engines
and BOLLERS, High Pressure or Compound.

STEAM VESSELS of all kinds built complete, with
Hulls of Wood, Iron or Composite
STEAM BOLLERS. Particular attention given to the
quality of the material and workmanship, and none
but first-class work produced.

SUGAR MILLS AND SUGAR-MAKING MACHINERY
made after the most approved plans. Also, all
Roller Iron Work connected therewith
PUMPS. Hot or Cold Water Pumps, for Irrigation or City
Water Works purposes built with the celebrated
Davy Valve Motion, superior to any other Pump.

Graham Paper Co.

OF ST. LOUIS

W. G. Richardson

PACIFIC COAST MANAGER,

No. 529 Commercial St.,

SAN FRANCISCO, - - - CALIFORNIA

TELEPHONE No. 1064.

S.F. STENCIL WORKS
J.L. GREENLEAF
MANUFACTURER OF
STENCILS
BRANDS Etc.
405 FRONT ST. SAN FRANCISCO.

BOX
BRANDS
A
SPECIALTY.
BRUSHES
—AND—
ALL Kinds of
INKS
FOR SALE.

Country Orders
Promptly Filled

OUR NATIVE WINE SHIPMENTS BY SEA.

PER P. M. S. S. CO'S STEAMER SAN BLAS, AUGUST 15, 1886.

TO NEW YORK.

MARKS	SHIPPERS	PACKAGES AND CONTENTS	GALLONS	VALUE
F S, New York	Williams, Diamond & Co	2 barrels Wine	50	\$50
J T, New York	A. Nott	5 barrels Wine	231	147
		2 barrels Brandy	21	54
S & Co, New York	C. Anduran & Co	50 barrels Wine	2,352	1,007
F M, New York		50 barrels Wine	2,372	918
E G, Baltimore		8 barrels Wine	300	150
T & L, New York		25 barrels Wine	1,169	461
S & C, New York		25 barrels Wine	1,169	460
Total amount of Wine			7,727	\$3,197
Total amount of Brandy			21	54

TO CENTRAL AMERICA.

M M, La Union	Kohler & Frohling	5 octaves Wine	82	\$54
F P & Co, La Union	Francia & Frueste	32 cases Wine	160	231
R V L, Amapala	Cabrera, Roma & Co	16 kegs Wine	192	192
B F, Amapala	"	12 cases Wine	60	55
Total amount of Wine			494	\$535

TO MEXICO.

V L, San Blas	W. Loiza	1 kegs Wine	72	\$ 73
M C, Tonala	Macmoray & Co	1 octave Brandy	20	19
B G, San Blas	J. Gimbalh & Co	12 kegs Wine	239	167
		3 kegs Brandy	58	127
J L, Manzanillo	F. Frohman	6 cases Wine	240	238
Total amount of Wine			591	\$478
Total amount of Brandy			78	146

TO PANAMA.

J R, Panama	C. Anduran & Co	20 barrels Whiskey		\$160
I S B, Panama	Eugene de Saba & Co	2 cases Wine	20	16
Total amount of Wine			20	\$ 16
Total amount of Whiskey, 20 barrels				160

MISCELLANEOUS SHIPMENTS.

DESTINATION	VESSEL	RIG	GALLONS	VALUE
Kahului	Anna	Schooner	112	\$118
Victoria	Mexico	Steamer	784	\$29
Apia	Marion	Barkentine	58	40
Honolulu	Claus Spreckels	Brig	255	179
Total			1,209	\$1,166

TO NEW YORK—PER STEAMER COLIMA, AUGUST 23.

S & Co, New York	C. Anduran & Co	75 barrels Wine	3,651	\$1,200
F R, New York	"	25 barrels Wine	1,165	400
B B, New York	"	25 barrels Wine	1,212	500
Total amount of Wine			6,028	\$2,000

TO CENTRAL AMERICA.

S & Co, San Jose de Guatemala	Schwartz Bros	12 1/2 barrels Wine	42	\$32
E V, La Libertad	John T Wright	2 packages Whiskey		50
H & Co, San Jose de Guatemala	Williams, Diamond & Co	100 cases Whiskey		600
Total amount of Wine			42	\$32
Total amount of Whiskey				650

MISCELLANEOUS SHIPMENTS.

DESTINATION	VESSEL	RIG	GALLONS	VALUE
Victoria	Queen of the Pacific	Steamer	245	\$296
Kahului	Rosario	Schooner	48	30
Tahiti	Malcata	Schooner	325	106
Honolulu	Australia	Steamer	2,138	1,858
Total			2,756	\$2,290

Total shipments by Panama steamers	11,902 gallons	\$6,258
Total shipments by other sea routes	3,965 "	3,456
Grand totals	15,867	\$ 9,714

J. N. KNOWLES, MANAGER

EDWIN L. GRIFFITH, SR. RETARY

ARCTIC OIL WORKS.

MANUFACTURERS OF

Sperm Whale, Elephant and Fish Oils, Skid Grease

WHALE OIL SOAP.

ESPECIALLY ADAPTED FOR VINEYARDS AND FRUIT ORCHARDS.

OFFICE—28 CALIFORNIA STREET, S. F., Cal.

FRESNO RAISIN GROWERS.

(Fresno Democrat.)

A meeting of raisin growers was held in Fresno, for the purpose of securing, if possible, a reduction on raisins shipped to San Francisco, and for the further purpose of having Fresno made a terminal point for the shipment of raisins east.

Judge North was chosen chairman, and T. C. White, secretary. The meeting was addressed by several who pointed out the unjust discriminations made against the raisin growers of Fresno. A committee, consisting of Judge North, J. T. Goodman and A. B. Butler, was appointed to draft a memorial to the railroad company and after due deliberation, presented the following:

WHEREAS, the raisin interests of this district are of paramount interest to this locality, and

Whereas, owing to the persistent opposition and competition of Spanish producers, the raisin producers are unable to work at a profit, and

Whereas, the present crop of raisins throughout this State is unusually large and liable to bring but a low price, and

Whereas, the rate of freight from Fresno to a common point is a severe and we believe an unjust tax on the raisin product. Now be it resolved that we the raisin producers respectfully petition the Southern Pacific R. R. Co., that they make Fresno station a terminal point for shipments of raisins to eastern points, and that they reduce the rate of freight from Fresno to San Francisco and other points. And your petitioners in support of the above resolutions respectfully show:

First. That the wine producers have obtained a liberal concession on the freight rate, and have their empty cooerage repaid at a nominal rate.

Second. There is a large amount of freight paid by raisin producers on the supplies used in packing, thus paying double freight.

Third. There are large quantities of inferior grapes which could be made into a low grade of raisins and shipped, but, owing to the high rate of freight are allowed to go to waste. This is especially the case in a bad season when the raisins are wet by early rains.

Fourth. The raisin interest is not as fully protected by the Government tariff as the wine interest, and therefore better entitled to your assistance and support.

Fifth. This section is the principal raisin district of the State, and stands to-day in the poorest position as to shipments. Our terminal points being Stockton, 120 miles, and Los Angeles 200 miles distant.

In addition to the above facts, we will add that we are compelled, owing to the high rates of freight, to purchase our supplies of boxes in the mountains and bring

them here on teams, thus taking from you freight that you could otherwise earn.

That the freight on raisins from Malaga and Valencia, is not one-fourth of our freights from Fresno or New York, thus placing us at a disadvantage as to foreign raisins. In conclusion we would respectfully call your attention to the fact that the raisin interest in this section is but in its infancy, and any concessions you may make will certainly revert to your profit.

We would further say that it will work great hardships if those concessions are not made.

We would also call your attention to the fact that Riverside, California, a raisin producing section, is able to make shipments to eastern points at about one-half the freight paid by ourselves, thus working further hardships to us.

The report was adopted, and a committee consisting of J. W. North, A. B. Butler, T. C. White, Wm. T. Coleman & Co., Newhall & Co., Geo. W. Meade & Co. and A. Lusk & Co., was appointed to present the resolutions to the railroad company. The hat was passed around and \$100 was raised to pay the committee's expenses to San Francisco.

A resolution was adopted, fixing the rate per day for Chinese pickers at \$1.00, and eighty-five cents per day for packing. A further resolution was introduced and adopted that those present consider themselves a permanent organization, and the meeting adjourned to meet again August 28th.

FRESNO WINE MAKERS.

Stirred up somewhat, perhaps, by the action of the raisin growers, the wine makers of this vicinity held a meeting, and after reviewing the wrongs under which they struggled, to-wit, that the present freight rates were unjust, severe and discriminating, adopted a memorial to the railroad company, asking relief. They reviewed at some length the growth and importance of the wine industry, and the adaptability of the soil and climate for its supply. They endorsed the resolutions adopted by the raisin growers, but they claimed that they had a better claim for favors from the railroads than the raisin growers, and among other reasons cited the fact that, as compared with wine making, the raisin industry was quite simple, the plant for the latter requiring but a small outlay of capital, and the labor for carrying it on not being skilled or high-priced; that there had been a great depression in the price of raisins.

For these and other reasons they asked for a reduction of the ruling freight rates, and that Fresno be made a terminal shipping point. A committee of three was appointed to present their case to the railroad company.

W. T. Y. SCHENCK,

Sole Agent, Pacific Coast,

"Eureka," "Paragon," "Red Cross" & "Mill"

Brands of

COTTON RUBBER LINED FIRE AND GARDEN HOSE.

Also RUBBER HOSE of Extra Fine Quality. Hose Carts, H. & L. Trucks, Fire Engines and Fire Dept. Supplies generally. Manufacturer of the Celebrated

Square Flax Packing, the Best in the world for all Hydraulic purposes.

No 256 Market St., San Francisco.

Williams, Dimond & Co.

SHIPPING

—AND—

COMMISSION MERCHANTS,

UNION BLOCK,
CORNER FINE AND MARKET STS., San Francisco, Cal.

Agents for Pacific Mail Steamship Co., Pacific Steam Navigation Co., the Cunard Royal Mail Steam Ship Company, the California Line of Packets from New York, the Hawaiian Line of Packets.

The China Traders Insurance Company (Limited.)

Successful Banking.

THE PACIFIC BANK is now just entering on its twenty-fourth year under brilliant auspices, and with the able financiers who have so long piloted it on the road to success, with a million of capital paid up, and over \$500,000 of surplus, vast resources and unsurpassed facilities for business, it is prepared to accommodate customers, borrowers, lenders or dealers in exchange, and to issue Letters of Credit at all times to any part of the civilized world.

WANTED.

A FIRST-CLASS WINE MAKER OF 15 YEARS experience wishes a position in a large wine cellar. Thoroughly understands distillation and setting the machinery connected therewith. Address "Wine Maker," MERCHANT office.

HARD TIMES MADE EASY.

Are you using Wellington's Improved Egg Food for Poultry? If not, why not?

EXCELSIOR HOT WATER INCUBATOR.
No lamp. No oil. No expense to run. No watching. Best in the world.

ECC TESTER. Testing six at a time. Quicker and better than one by any other process.

Needs of Every Variety.

B. F. WELLINGTON,
425 WASHINGTON ST., San Francisco, Cal.

BOSTON BELTING CO.

GOOO HOSE A SPECIALTY.

J. W. CIRVIN & CO.,
24 CALIFORNIA STREET, S. F.

PAUL O. BURNS WINE CO.
Proprietors

YERBA BUENA VINEYARD.
DISTILLERS OF GRAPE BRANDY.

Fine old Mountain, Burgundy, Zinfandel, Riesling, Gutedel, etc., in cases or bu k.

Branch Cellars in San Jose, Cal., U. S. A. P. O. San Jose, Cal.

WM T COLEMAN & CO., SAN FRANCISCO,
Sole Agents for Chicago and New York.

A MEMOIR ON OLIVE GROWING

WITH ILLUSTRATIONS.

Read Before the State Horticultural Society, February 29, 1884, by

FRED. POHNDORFF.

Will be mailed by the S. F. MERCHANT on receipt of 50 cents in one or two-cent postage stamps.

THE WINE PRESS AND THE CELLAR,

By E. H. Bixford.

A MANUAL FOR THE WINE MAKER AND THE CELLAR MAN.

PRICE, \$1.50.

For sale by

"THE SAN FRANCISCO MERCHANT."

BUY THE HOWE SCALE.

D. N. & C. A. HAWLEY,
AGENTS, San Francisco.

JAMES HUNTER
GAUGER OF WINES AND SPIRITS.
(Established 1851.)
OFFICE—323 FRONT STREET.
San Francisco.



ARE YOU USING
WELLINGTON'S
IMPROVED EGG FOOD
For Poultry?
IF NOT, WHY NOT?
EVERY GROCER, DRUGGIST AND MERCHANT
SELLS THIS EGG FOOD

FRAZER AXLE GREASE

BEST IN THE WORLD
Its wearing qualities are unsurpassed, actually outlasting two or three of any other brand. Free from Animal Oils. **GET THE GENUINE.**
FOR SALE BY
CALIFORNIA MERCHANTS
and Dealers generally.



A. 1876 S. I. XII.
I. S. 1888 G.
The Industrious never Sink.
CROSSE & GARDNER,
BROKERS IN REAL ESTATE.
Ranches, Residence, Business and Manufacturing Property Bought and Sold on Commission. And Publishers of "Sonoma County Land Register and Santa Rosa Business Directory."
OFFICE, No. 312 B St., SANTA ROSA, CAL.

E. L. G. STEELE & CO.,

Successors to
C. ADOLPHE LOW & CO.,
COMMISSION MERCHANTS.

Agents American Sugar Refinery and Washington Salmoo Cannery.

L. LANDSBERGER, HENRY M. LANDSBERGER.

Landsberger & Son,

Commission Merchants,

123 CALIFORNIA STREET
SAN FRANCISCO.

Agents for the Purchase and Sale of Viticultural Products and Vintners Supplies.

ANGLO-NEVADA Assurance Corporation

—OF—

SAN FRANCISCO, CAL.
FIRE and MARINE.

Subscribed Capital \$2,000,000.
OFFICE: 410 PINE ST.

DIRECTORS:

LOUIS SLOSS, J. W. MACKAY, W. F. WHITTIER,
J. E. HAGGIN, J. ROSENFELD, E. E. EVRE,
J. L. FLOOD, E. L. GRIFFITH,
G. L. BRANDER, J. GREENEBAUM,
W. H. DIMOND.

This Corporation is now prepared to receive applications for Fire and Marine Insurance.

G. L. BRANDER, President
J. L. FLOOD, Vice-President
C. P. FARNFIELD, Secretary
J. S. ANGUS, Assistant Manager

Bankers, The Nevada Bank of San Francisco

E. C. HUGHES PRINTER

511 Sansome St., S. F.

THE WINE & FRUIT GROWER.

B. F. CLAYTON,
EDITOR AND PUBLISHER.
21 PARK PLACE, New York.

SUBSCRIPTION TERMS.

(Payable in advance.)

ONE YEAR (Free of Postage) \$1.00
SIX MONTHS 50
SINGLE COPIES 10
EUROPEAN COUNTRIES 1.50

Subscriptions and advertisements received at the office of the "Merchant."

CHOICE OLD WHISKIES

PURE AND UNADULTERATED.

We Offer for sale on Favorable Terms to the Trade.

CATHERWOOD'S

Celebrated Fine Old Whiskies.

OF THE FOLLOWING BRANDS, NAMELY

"CRANSTON CABINET"
"A.A.A." "CENTURY"
"OLD STOCK"
"HENRY BULL"
"IDDOUBLE B"
"MONOCRAM"

VERY OLD AND CHOICE, IN CASES OF ONE DOZEN QUART BOTTLES EACH.

"BRUNSWICK CLUB" Pure Old Rye,
And "UPPER TEN."

For Excellence, Purity and Evenness of Quality the above are unsurpassed by any Whiskies imported. The only objection ever made to them by the manipulating dealer being that they cannot be improved upon.

Dickson, De Wolf & Co.

SOLE AGENTS,

SAN FRANCISCO, CAL.

Challenge Wine Pump.

WITH BRASS LINED CYLINDER, OR ALL BRASS PUMP.



The annexed cut represents our Horizontal Challenge Wine Pump of great compactness and power, for use in wine cellars for pumping from one tank into another. The cylinders of our iron pumps are brass lined, the piston rod, valves and valve seats are brass. Our all-brass pumps are made entirely of brass with exception of the lever. Very Suitable as a power wine pump.

Wine Tanks,
WATER TANKS.

We manufacture our tanks of two and a half quality Redwood Lumber, well seasoned, free from knots, with a hoop to every foot in height and guarantee them to be well made in every respect. Write for special prices. **SEND FOR OUR SPECIAL CATALOGUE** of Wind Mills, Pumps of all description, Wine Hose, Garden Hose, Wine Cocks, etc. Mailed free upon application.

WOODIN & LITTLE,
509 and 511 Market Street, San Francisco.

GOODYEAR'S "GOLD SEAL" Rubber Hose,

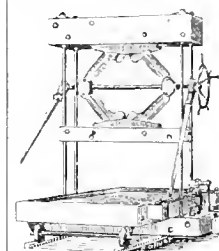
For Sale by All Dealers.



GOODYEAR RUBBER CO.

R. H. FRANK, JR. & AGENTS
S. M. HAYDON, J.
377 and 379 Market St., SAN FRANCISCO.

WORTH'S IMPROVED PATENT COMBINED TOGGLE LEVER SCREW PRESS.



I desire to call the attention of wine and cider makers to my Improved Press. With this Press the movement of the follower is fast at the commencement, moving one and a half inches with one turn of the screw. The last turn of the screw moves the follower one-sixteenth of an inch. The follower has an up and down movement of 20 1/2 inches, with the double platform run on a railroad track. You can have two curls, by which you can fill one while the other is under the press, thereby doing double the amount of work of any other press in the market. Model on exhibition at the offices of the Board of State Viticultural Commissioners. Also manufacture Horse Powers for all purposes, Enslage Cutters, Plum Fitters, Worth's System of Heating Barries by hot water circulation. **SEND FOR CIRCULAR.**

W. H. WORTH,
Petaluma Foundry and Machine Works,
Petaluma, Sonoma Co., Cal.

Testimonials from L. DeTuck, Santa Rosa; J. B. J. Fort, San Jose; Ely T. Sheppard, Glen Ellen, Kate F. Warfield, Glen Ellen; J. H. Brimmond, Glen Ellen; Joseph Walker, Windsor; John Hinkelmann, Fulton; Wm. Pfeiffer, Guibersville; J. & F. Muller, Windsor; E. C. Seiler, Guibersville; Lay Clark & Co., Santa Rosa; Vackey, Freres, Old San Bernardino; J. Frank, Wilham Allen, San Gabriel; James Finley, San R. & J. J. Gold, Healdsburg; W. Metzger, Walter Phillips, Santa Rosa; J. Lawrence Watson, Glen Ellen; Geo. West, Stockton; can be had by applying for printed circulars.



The German Law affecting Counterfeit Wines.

(New York Wine and Fruit Grower.)

Fining, &c., of Wines.—Fining with eggs, isinglass, gelatine, glue, milk, blood, common salt, kaolin, and such like, in the ordinary way, to be permitted. **Alum.** The use of alum to improve the color of wine is prohibited. **Sulphate of Lime.**—In Red Wines the proportion of sulphate of potash not to exceed two grains in the litre; in White Wines a slightly higher percentage to be admissible in white dessert wines only. **Baryta Salts.**—The addition of these is forbidden. **Caustic Lime, Carbonate of Lime, Carbonate of Soda, Carbonate of Potash.**—The use of calcic precipitate to be alone permissible, the proportion not to exceed 100 grains in 200 litres of wine. **Introduction of Carbonic Acid into Wine.**—On the introduction of carbonic acid (by the use of magnesite and sulphuric acid) the Commission offers no opinion. **Sulphuring, Cleansing with Sulphuring Acid, &c.**—The sulphuring of casks to be permitted, but care enjoined to avoid the use of materials containing arsenic; especial care is needed where sulphurous acid gas is used. **Tannin.**—The use of this material to assist in fining to be allowed. The proportion is not specified, as the public taste will be a sufficient guarantee against its use in excess. **Salts of Lead.**—The use of these to be prohibited.

Coloring, &c., of Wines.—The coloring of White Wines with caramel, and of Red

Wines with grape-color, darker wine, elderberries, cherries, or mallows, not to be acts of fraud or adulteration within the meaning of the Law of 1879; but the sale of colored White Wines as Red Wines, to be illegal. **Sugar.**—The addition of pure cane or grape-sugar to "must" not to be an act of fraud or adulteration within the meaning of the Law of 1879. The addition of impure forms of starch, as in potato-sugar, to be prohibited. **Glycerine.**—The addition of glycerine to wine to be prohibited. **Salicylic Acid.**—The addition of salicylic acid to wines has appeared to the Commission to be inadmissible. **Artificial Bouquet.**—The use of these (essences, ethers, &c.) to be forbidden.

Addition of Spirit.—Under this head it is recommended: That none but fusel-free spirit be used. That the rousing of casks with pure spirit and small additions of the same in the cellar, be allowed. That the maximum addition of spirit to German wines be 1 per cent., i. e., a litre to the hectolitre of wine. That maxima be fixed for imported wines with reference to their respective alcoholic strengths.

Vinification and Treatment of Wines.—Mixing and blending to be allowed as heretofore. The treatment of wines by Chaptal's Petiot's, and analogous processes (*Chaptalisierung, Petiotisierung, gallsierung*), and also watering (*mouillage*), be recognized within the customary limits, and subject to the following provisos: That none but pure fermented grape-juice be sold or offered as "natural wine." That "chap-

talized" and other mixed and blended wines be sold as "wine." That the latter designation be applicable to mixtures of spirit and water containing not less than one-third of their volume of "natural wine."

Manufacture of Artificial Beverages.—The fabrication and sale of spurious beverages of all kinds is forbidden; but beverages containing more or less wine, and not injurious to health, may be prepared, so long as they are not sold as "wine," but as "kunst-wein" (made-wine) or "half-wine."

Labels.—The label to be merely a comparative index of the price and description of the wine. As "natural wines" only must be sold under the grower's name, it is conceded that the same rule should apply to wine sold under the name of any particular locality. Wine-like drinks of harmless kind to be sold as "made wine" or "imitation wine." In the manufacture of the latter the use of acids, tartar and tartrates, tamarinds and the like, as well as of fusel-spirit, glycerine and such like materials, to be prohibited. The prohibition, so far as the materials are concerned, not to apply to the manufacture of "sweet-wines."

Half-Wine.—All wines which, for any of the aforesaid reasons, do not rightly come up to the standard of "wine," must be sold as "half-wine."

The above is a summary of the German law on adulteration of wines, &c. A violation of its provisions renders one liable to fine and imprisonment, and the laws are made to be enforced in Germany, and they are enforced with commendable energy.

R.H. McDonald, S.G. Murphy,
—PRESIDENT—
R.H. McDonald Jr.
VICE-PRES.
PACIFIC BANK
Oldest Chartered
Commercial Bank
on the Pacific Coast.
Capital \$1,000,000.00
Surplus \$500,000.00
San Francisco, Cal.

July 1st, 1886.

We respectfully invite attention to the statement herewith presented, and beg to say we are pleased with our achievements during the first half of the present year.

It is gratifying to us, also, to state that the results attained are satisfactory to our stockholders. We hope our success will receive the favorable regard of our patrons and friends whose business relations have conducted to enable us to make so commendable an exhibit as the following:

ASSETS:

Bank Premises,	\$150,000 00
Other Real Estate,	35,556 27
Land Association, Gas and	
Bank Stocks,	31,304 65
Loans and Discounts,	2,374,343 15
Due from Banks,	339,502 11
Money on Hand,	481,403 74
—*	\$3,416,551 96

LIABILITIES:

Capital, paid up,	\$1,000,000 00
Surplus Fund,	500,000 00
Undivided Profits,	23,314 71
Due Depositors,	1,741,973 33
Due Banks,	151,250 90
	3,416,551 96

While returning thanks to our friends for the very liberal patronage during the past, a continuance of their favors is respectfully requested.

The regular semi-annual dividend has been declared and a balance of accumulation placed to account of undivided profits.

R. H. McDONALD, President.

SULPHUR! SULPHUR! SULPHUR!

FOR SALE IN

QUANTITIES TO SUIT.

WM. CLUFF & CO.,

WHOLESALE GROCERS,

16, 18, 20 and 22 Front St., Cor. Pine, S. F.

JOHN A. ROEBLING'S SONS CO.
WIRE ROPE
GALVANIZED SHIP RIGGING, MINING, TILLER,
ELEVATOR, TINNED, & COPPER ROPE, SASH CORDS.
LARGEST WIRE ROPE WORKS IN THE WORLD.
IRON & STEEL WIRE OF EVERY KIND.
TELEGRAPH WIRE, HARD & SOFT COPPER WIRE
INSULATED FOR ELECTRIC USE.
WIRES OF IRON & COPPER, FENCE WIRE,
SWEDISH IRON WIRE, CRUCIBLE STEEL WIRE.
TRENTON, N. J. & 14 DRUMM ST. SAN FRANCISCO, CAL.

THE AMERICAN SUGAR REFINERY COMPANY,

MANUFACTURERS OF THE

CELEBRATED CUBE SUGAR,

Supplies Only Exporters and the Jobbing Trade.

This Company manufactures all the Grades of HARD and COFFEE SUGARS and SYRUPS. Special attention given to the making and Packing of Loaf Sugar for Export.

208 CALIFORNIA STREET,

SAN FRANCISCO, CAL.

E. L. G. STEELE,
President.

Dr. MINTIE

THE SPECIALIST,

No. 11 KEARNY ST., San Francisco.

Treats all Chronic, Special and Private Diseases with Wonderful Success.

THE GREAT ENGLISH REMEDY



Is a never-failing cure for NERVOUS DEBILITY, EXHAUSTED VITALITY, SEMINAL WEAKNESS, SPERMATORRHOEA, LOST MANHOOD, PROSTATORRHOEA, IMPOTENCY, Paralysis and all the terrible effects of self abuse, youthful follies and excesses in mature years, such as loss of Memory, Lassitude, Nocturnal Emissions, Aversions to Society, Dimness of Vision, Noises in the Head, excess in drinking intoxicating liquors, the vital fluid passing unabsorbed in the urine, and other diseases that lead to insanity and death.

Dr. Mintie WHO is a Regular Physician Graduate of the University of Pennsylvania, who will agree to forfeit \$500 for a case of this kind the Vital Restorative, (under his special advice and treatment) will not cure, or for anything injure or injurious found in it. Dr. Mintie treats all PRIVATE DISEASES SUCCESSFULLY WITHOUT MERCURY. Consultation Free. Thorough examination and advice, including analysis of urine, \$5. Price of Vital Restorative, \$1.50 a bottle or four times the quantity, \$5; sent to any address upon receipt of price, or C. O. D., secure from observation, and in private name if desired, by Dr. A. E. Mintie, 11 Kearny street, San Francisco, Cal.

Send for pamphlet and list of questions.

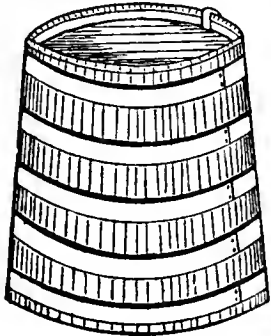
SAMPLE BOTTLE FREE.

Will be sent to any one applying by letter stating symptoms, sex and age. Strict Secrecy in regard to all business transactions.

DR. MINTIE'S KIDNEY REMEDY NEPHRETICUM, cures all kinds of Kidney and Bladder Complaints, Gonorrhea, Gleet, Leucorrhea, etc. For sale by all Druggists; \$1 a bottle, 6 bottles for \$5.

DR. MINTIE'S DANDELION PILLS are the best and cheapest DYSPEPSIA and BILIOUS cure in the market. For sale by all Druggists.

REDWOOD TANKS

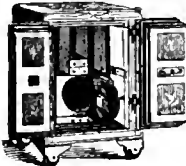


F. KORBEL & BROS.

727 BRYANT ST., S. F.,

Orat NORTH FORK MILL, Humboldt Co., Cal.

FIRE-PROOF SAFES ALL SIZES.



CHAS. WALTZ, inventor and Manufacturer of the Waltz Safe. Fire and Burglar Proof Safes, Time Locks, Bank and Vault Work, a Specialty. Expert work done in opening and repairing Safes and Locks. Beard's Patent Screw Door Burglar Proof Safes and Chests. Safes built to order.

CHAS. WALTZ, 11 Drumm Street, SAN FRANCISCO, CAL.

Write for prices and information.

RUPTURE RADICALLY CURED by Dr. Pierce's Great Discovery. Thousands of patients cured. AT THEIR OWN HOMES. No Experiment! It does the Work. DR. PIERCE & SON, 704 Sac to St., San Francisco, Cal.

THE COOS BAY STAVE & LUMBER CO.

— MANUFACTURERS OF ALL KINDS OF —

COOPERAGE GOODS!

Especially invite the attention of Wine Men to their unsurpassed facilities for supplying packages from a

5-GALLON KEG TO A 160-GALLON PIPE OR PUNCHED.

Our machinery enables us to execute all orders with promptness and economy. Price List on application

OFFICE: 323 FRONT STREET,

WORKS BRANNAN ST., NEAR EIGHTH.

CLARIFYING AND PRESERVING WINES.

The undersigned having been appointed Sole Agents on the Pacific Coast by Messrs. A. BOAKE & CO., Stratford, Eng., for their renowned

LIQUID ALBUMENS,

beg to call the attention of Wine Growers and Wine Merchants to the following articles, the superior merit of which has been confirmed by Silver Medals, the highest awards given at the International Exhibition of Paris 1878, Bordeaux 1882, and Amsterdam 1883, viz:



LIQUID ALBUMEN FOR RED WINES,

Claret, Burgundy and Port.



LIQUID ALBUMEN FOR WHITE WINES,

Sauternes, Sherry and Madeira, also for distilled liquors; Whisky, Gin, etc., etc.



WINE PRESERVER,

For Preserving the Brilliance of the wines.



WINE CORRECTOR,

For Correcting the Roughness of Young Wines.



WINE RESTORER,

For Restoring Badly Made or Badly Treated, Harsh and Tart Wines.

A trial according to directions will prove the superior qualities of these finings. For sale in quantities to suit by

CHARLES MEINECKE & CO., Sole Agents,

314 SACRAMENTO STREET, SAN FRANCISCO.

WM. T. COLEMAN & CO.,

Commission Merchants.

SAN FRANCISCO,

CHICAGO,

NEW YORK,

Agency WM. T. COLEMAN & Co.,

ASTORIA, Or.,

Agency WM. T. COLEMAN & Co.,

LONDON.

With Agents and Brokers in every Commercial City of Prominence in the Union.

WE MAKE A SPECIALTY OF HANDLING THE

RAISIN CROP OF CALIFORNIA!

[And amongst others we are Agents for

Riverside Fruit Company of Riverside, Miss Mary F. Austin of Fresno, McPherson Bros. of Orange, T. C. White of Fresno.

With many other of the Most Prominent Curers of this State.

Our Facilities for Promptly Placing and widely Distributing Their Produce can be Ascertained from the Above well-known Curers.

We are also Large Handlers of

ORANGES, DRIED FRUITS, HONEY AND BEANS

IN THE EASTERN STATES.

Advances Made when Required, and Full Information of Markets Promptly Given. Address

Wm. T. COLEMAN & Co.

MARKET & MAIN STS., S. F.

"LE MERVEILLEUX"

— TOR —

Most Powerful and Cheap st Wine and Cider Press YET PRODUCED.

Patented in France, England, Germany, Belgium, Italy, Norway, Sweden, Denmark and the United States.



This press (a French invention) has been used several seasons in the wine districts of France and Germany with great success, and is now introduced to the American public for the first time.

Its advantages are: Rapidity of action and immense power. With a single effort 3 or 4 times more power can be obtained than with any other press known at this day. It has also greater capacity than any other press in the market. The Press can be seen in operation, and is for sale at the factory of F. W. KROGH & CO., 51 Beale St., San Francisco, Cal.

PARE BROS.,

Sole Agents for United States,

Fresno, Cal.

Send for Circular.

Valuable Patent

FOR SALE.

The Claus Improved

GRAPE-VINE TRELLIS.

LATELY PATENTED, ATTRACTS GREAT ATTENTION among vintners everywhere as far surpassing any other form by efficiency and perfection. Generally acknowledged to be a meritorious invention and an unrivaled progress in viticulture, it will pay its application tenfold. It is truly a first class acquisition.

RIGHTS OF THIS PATENT

FOR SALE BY

AMERICAN PATENT AGENCY

188 & 190 WEST 5th ST,

Cincinnati, Ohio.

Full descriptive illustrations, costs, etc., given by the above and the inventor

C. H. TH. CLAU,

Cor Iowa & Keokuk Sts., St. Louis, Mo.

NOW READY.

THE

REPORT

OF THE

FOURTH ANNUAL

STATE

VITICULTURAL

CONVENTION.

PRICE, ONE DOLLAR.

OFFICE OF THE SAN FRANCISCO MERCHANT.

E. C. HUGHES & CO.,

Publishers,

511 Sansome Street,

HONOLULU CASTLE & COOKE, SHIPPING AND COMMISSION MERCHANTS

Honolulu, Hawaiian Islands.
—AGENTS FOR—
THE KOHALA SUGAR CO.,
THE HAIKU SUGAR CO.,
THE PAPAIOU SUGAR PLANTATION
THE WAIALUA SUGAR PLANTATION
THE PAIA PLANTATION
A. H. SMITH & CO.,
THE N. E. M. LIFE INSURANCE
CO. BOSTON.
THE UNION INSURANCE CO.
OF SAN FRANCISCO.
THE GEO. F. BLAKE MFG CO.,
STEAM AND VACUUM PUMPS,
D. M. WESTON'S CENTRIFUGAL
MACHINES.

WM. G. IRWIN & CO. SUGAR FACTORS AND COMMISSION AGENTS

Honolulu, H. I.
—AGENTS FOR—
BAKALAU PLANTATION.....Hawaii
NAALEHU PLANTATION.....Hawaii
HONUAPU PLANTATION.....Hawaii
HILEA PLANTATION.....Hawaii
STAR MILLS.....Hawaii
HAWAIIAN COM'L & SUGAR CO.....Maui
MAKEE PLANTATION.....Maui
WAIHEE PLANTATION.....Maui
MAKEE SUGAR CO.....Kauai
KEALIA PLANTATION.....Kauai

OCEANIC STEAMSHIP COMPANY.

Kohler & Frohling, PIO .EER WINE HOUSE.

ESTABLISHED 1854

Growers of and Dealers in CALIFORNIA WINES & BRANDIES.

VINEYARDS IN
LOS ANGELES COUNTY, SONOMA COUNTY,
MERCED CO. AND FRESNO CO.

626 MONTCOMERY ST.,
San Francisco.
6 BARCLAY STREET,
New York.

A. ZELLERBACH. IMPORTER AND DEALER IN BOOK, NEWS, FLAT, WRITING PAPER.

MANILA, WRAPPING AND STRAW PAPER,
Colored, Poster and Tissue Paper Also En-
velopes and Twine.

419 & 421 CLAY STREET.
few doors below Sansone San Francisco, Cal.



THE SOUTHERN PACIFIC CO.,
Respectfully invites the attention of TOURISTS AND
PLEASURE SEEKERS to the SUPERIOR FACILITIES
afforded by the "Northern Division" of its line
for traveling the principal

SUMMER AND WINTER RESORTS OF CALIFORNIA
WITH SPEED, SAFETY AND COMFORT.

Pescadero, Menlo Park, Santa Clara,
San Jose, Madrone Mineral Springs,
Gilroy Hot Springs.

-MONTEREY- THE QUEEN OF AMERICAN WATERING PLACES

Camp Goodall, Aptos, Loma Prieta,
Monte Vista, New Brighton, Sequel,
Camp Capitola, and

SANTA CRUZ.

PARAISO HOT SPRINGS.

EL PASO DE ROBLES HOT AND COLD SULPHUR SPRINGS, And the only Natural Mud Baths in the World.

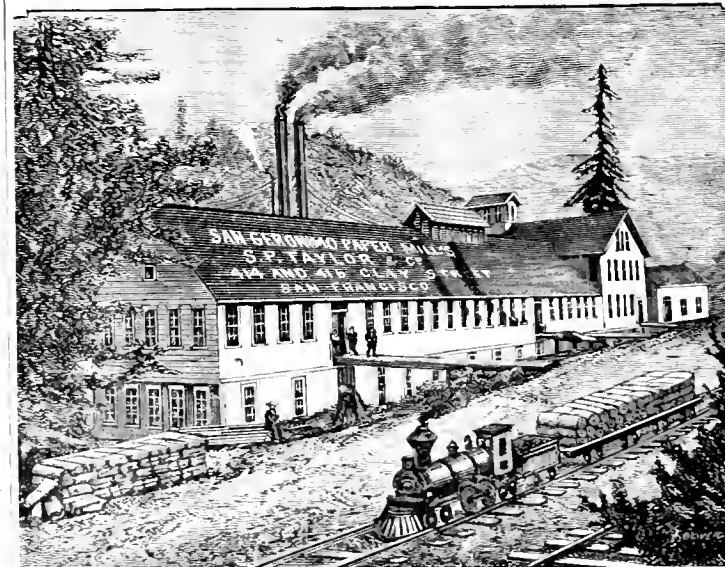
This Road runs through one of the richest and
most fertile sections of California, and is the only line
traversing the famous Santa Clara Valley, celebrated
for its productivity, and the picturesque and park-
like character of its scenery, as also the beautiful San
Benito, Pajaro and Salinas Valleys, the most flourish-
ing agricultural sections of the Pacific Coast.

Along the entire route of the "Northern Divi-
sion" the tourist will meet with a succession of Extensive
Farms, Delightful Suburban Homes, Beautiful Gar-
dens, Immense Orchards and Vineyards, and Lux-
uriant Fields of grain; indeed a continuous panorama
of enchanting Mountain, Valley and Coast scenery is
presented to the view.

Characteristics of this Line:
GOOD ROAD-BED. STEEL RAILS. ELEGANT CARS.
LOW RATES. FAST TIME. FINE SCENERY.

TO GET OFFICES—Passenger Depot, Townsend Street,
Valencia St. Station, and No. 613 Market Street,
Grand Hotel.
A. C. BASSETT, Superintendent, H. R. JUDAH,
Asst. Pass. and Tkt. Agt.

1856. PAPER. 1886. S. P. TAYLOR & CO. Manufacturers of and Dealers in Paper of all kinds.



Book, News, Manila, Hardware, Straw and Tissue
PAPER.
Paper Bags, Twines, Etc., Etc.
PRINTED WRAPPERS A SPECIALTY.
Proprietors Pioneer and San Geronimo Mills. Agents for South Coast (Straw) Mills.
414 and 416 CLAY ST., SAN FRANCISCO.

S. P. COMPANY. SHIPPING. QUICK TIME AND CHEAP FARES To Eastern and European Cities Via the Great Transcontinental All Rail Route.

SOUTHERN PACIFIC COMPANY. (PACIFIC SYSTEM)

Daily Express and Emigrant Trains make prompt con-
nections with the several Railway Lines in the East.

CONNECTING AT

NEW YORK AND NEW ORLEANS

with the several Steamer Lines to

ALL EUROPEAN PORTS.

PULLMAN PALACE SLEEPING CARS

attached to Overland Express Trains.

THIRD-CLASS SLEEPING CARS

are run daily with Overland Emigrant Trains.

No additional charge for Berths in Third-class Cars.

27 Tickets sold, Sleeping-car Berths secured, and
other information given upon application at the Com-
pany's offices, where passengers calling in person can
secure choice of routes, etc.

Railroad Lands

FOR SALE ON REASONABLE TERMS.

Apply to, or address,
W. H. MILLS, JEROME MADDEN,
Land Agent, Land Agent,
C. P. R. R. SAN FRANCISCO, S. P. R. R. SAN FRANCISCO

A. N. TOWNE, T. H. GOODMAN,
General Manager, Gen. Pass. & Tkt. Agt.,
SAN FRANCISCO, CAL.

OCEANIC STEAMSHIP COMPANY. Carrying the United States, Hawaiian and Colonia mails for HONOLULU, AUCKLAND, and SYDNEY WITHOUT CHANGE. The splendid new 3,000-ton steamer



MARIPOSA

Will leave the Company's wharf, corner Steuart
and Folsom streets,

SATURDAY, August 25th at 2 P. M.

Or immediately on arrival of the English mails.

FOR HONOLULU AND RETURN

The Steamer

September 15th

For freight or passage apply at office, 327 Market st

JOHN D. SPRECKELS & BROS.,
General Agents.

OCCIDENTAL & ORIENTAL STEAMSHIP COMPANY.

for JAPAN and CHINA.

Steamers leave Wharf corner First and Braccoan sts.
at 2 o'clock, P. M., for

YOKOHAMA and HONGKONG.

Connecting at Yokohama with steamers for Shanghai,

1886.

STEAMER. FROM SAN FRANCISCO:
SAN PABLO..... WEDNESDAY, AUGUST 25th
GALIC..... THURSDAY, SEPT. 30th
BE GIC..... TUESDAY, OCTOBER 19th
SAN PABLO..... TUESDAY, NOVEMBER 9th
OCEANIC..... WEDNESDAY, DEC. 1st
GALIC..... TUESDAY, DECEMBER 21st
EXCURSION TICKETS to Yokohama and return
at reduced rates.

Cabin plans on exhibition and Passage Tickets for
sale at C. P. R. Company's General Offices, Room 74,
corner Fourth and Townsend streets.

For freight apply to GEO. H. RICE, Freight Agent,
at the Pacific Mail Steamship Company's Wharf, or
at No. 202 Market street, Union Block.

T. H. GOODMAN Gen. Passenger Agent,
LELAND STANFORD President

SPRAY PUMPS.

Fruit Growers, Farmers, and all desiring to purchase
a Spray Pump that is far ahead of all others in the
market, as it is the ONLY Pump made with all metal
valves, should buy the "CLIMAX SPRAY
PUMP," all complete with tube, spray nozzle,
plain nozzle, galvanized iron can, six feet of best Rub-
ber Hose, capacity 8 gallons; all ready to use. Price,
\$15.00. Good Agents wanted at once. Send for
Circulars. 211 California St., San Fran-
cisco, Cal

ACME FRUIT AND GRAPE GATHERER.



SUPPLIES A LONG FELT WANT. SAVING TIME AND MONEY.

An invaluable tool for the purpose and so cheap
that they come within the reach of all. Samples
sent by mail on receipt of 60 cents.

SOLE AGENTS FOR THE PACIFIC COAST,
NOVELTY HARDWARE CO.
No. 1523 MISSION ST., SAN FRANCISCO, CAL.
Agents wanted



THE SAN FRANCISCO MERCHANT.

THE ONLY VITICULTURAL PAPER IN THE STATE.

Devoted to Viticulture, Olive Culture, and other Productions, Manufactures and Commerce of the Pacific Coast.

VOL. XVI, NO. 11.

SAN FRANCISCO, SEPTEMBER 10, 1886.

PRICE 15 CENTS

CHEAP WINES.

CHAPTER V.

Importance of spirit to the revenue—Natural proportion of spirit in pure wines of all countries—Mulder's belief in natural port—Government inquiries and reports—Why spirit is added to wine—*Le vinage* in the south of France.

By ROBERT DRUITT.

Fermented liquors of course contain alcohol. But alcohol is subjected to a very heavy tax, if distilled from the fermented liquor containing it. The revenue arising from the tax on distilled spirits in the United Kingdom for the year 1871, was 16,689,406*l*. When it was proposed to reduce the old heavy duties on wine, it was felt that if natural wine were let in at a low rate of duty, there was no reason to exempt spirits that might be mixed with wine; hence it became necessary to know what is the quantity of alcohol generated in natural wine.

It is surprising now to see the confusion which reigned on this subject thirty years ago; for instance, in the earlier wine analyses, as those by the eminent chemists Brande and Sir R. Christison, we find a long list of wines with their alcoholic contents arranged in tabular form; beginning with Port, the alcoholic contents of which are stated to range from 18 to nearly 24 per cent (double those figures give an approximate result in proof spirit); Madeira comes next with the same strength; Sherry figures as the wine next in strength—viz., from 17 to 20; then come a miscellaneous lot of sweet wines, as *Constantia*, *Lachryma Christi*, *Lisbon* and *Malaga*, which range from 15 to 20; *Roussillon* and *Syracuse*, nearly the same; *Amontillado* figures at 16; then comes a sudden drop. The wines of *Bordeaux* and *Burgundy* figure at 9, 10 and 11. It was conceived that the high alcoholicity of Port wine was due to some law of nature, and this was the opinion of philosophers as well as of the vulgar. Thus the most eminent Dutch chemist, Mulder, quotes from a writer named Gingal, who says "that genuine Port wines never contain more than 12½ per cent pure alcohol." Mulder does not believe Gingal. "How is it," asks he, "that all who have analyzed Port wine have found from 17 to 21 per cent alcohol? Is there no wine, except such as is adulterated with alcohol, export-

ed from Portugal? And does Port wine, which is recognized as the strongest wine in the country that produces it, really belong to those not very strong wines which only contain 13 per cent alcohol? For my part," adds Mulder, "I hesitate to accept Gingal's statement, although his experiments were made in Portugal." We now, however, know only too well that Gingal was right and Mulder wrong. But less than twenty years ago there were many who looked on Port wine, with its forty per cent of proof spirit, as a kind of natural product, which the Almighty had been pleased to create as the natural food for freeborn Englishmen. "*Nous avons change tout cela*."

There were two reports presented to Parliament—one called "Extracts of any Reports of an Inquiry under the Authority of the British Government in the year 1861 into the Strengths of Wine in the principal Wine-growing Countries of Europe;" the other bearing the title "*International Exhibition. Report to the Commissioners of H. M.'s Customs of the Results obtained in testing Samples of the various Wines exhibited, with a General Abstract of their Average Strengths, etc.*" The tale they tell is unanimous and unmistakable. It is that the quantity of alcohol in pure wine may in round numbers be assumed to be 20 per cent of proof spirit. Mr. Keene tested 569 samples at the International Exhibition, from Italy, Germany, Australia and France; and in the following year the English Commissioners of Customs sent representatives into all the wine growing countries of Europe to collect undisputed specimens of natural wine from the cellars of the original producers before any spirit whatever had been added. The fact remains, that of the 569 samples of liquid sent to the International Exhibition as wine, from France, Italy, Germany, Austria and our own colony of Australia, the average—all, in fact, but a few exceptional specimens—yielded 18 to 22 per cent of proof spirit.

These wines, be it observed, were sent by the growers. The evidence they give is corroborated to the utmost by those samples which were fetched and taken at the places of growth by the Assistant-Surveyors of the English Customs, as mentioned above. These samples were in every case authenticated as natural fermented juice of the grape, not mixed with any additional spirit; the figures which indicate their

strengths in proof spirit are as follows: 17.75 per cent for Bordeaux; 21.5 for Burgundies; 22 for Rhine wine and Hermitage; 24.3 for wine from the department of the Gard in the South of France. The average of Rhine wines, or Hocks, was 21.9, and of Hungarian the same. These figures are to be taken with the allowance that exceptional wines were met with, and particularly white wines, which ranged from 25 to 30.

France, Germany and Hungary are the countries from which wine—natural wine—is procured. Now let us turn to Spain, Portugal and Sicily. Let us see what is the percentage of spirit in the wines of those countries, according to Mr. Bernard

SPAIN—	Natural wine.	Wine slightly fortified.	Wine fortified for market.
St. Lucar, Vino Fino, Sherry	27.0	30.7	35.7
Xeres, Sherry	27.2	29.1	35.7
St. Mary's, Amontillado	31.7	31.7	35.7
Montilla	27.0	27.0	31.3
Valdepenas	27.2	27.2	31.3
Benicarlo	28.9	28.9	31.3
Alicante	28.9	28.9	31.3
PORTUGAL.			
Port (average of 9 samples of natural wines from different growers)	23.5	33.6	35.4
Port slightly fortified	23.5	33.6	35.4
Ditto for English market	23.5	33.6	35.4

Respecting the wines of Italy and Sicily, no sample was procurable of Marsala, but all other evidence shows that the wines reputed the strongest contain only 20 to 22 per cent of proof spirit: all beyond are mere exceptional specimens.

The English Customs fix 26 per cent as the highest standard of alcoholicity in natural wine: and for ordinary purposes 20 per cent may be taken as the average, yet there is no fast and hard line in nature. Mr. Griffin gives 29.20 as the percentage of some Rudesheimer, which I cannot believe to have been fortified. The powerful red wines of Australia, grown by Mr. Auld, Dr. Kelly and Messrs. Wyndham, are sometimes above 26; let it never be forgotten, too, that white wines are as a rule stronger than red; but M. Terrel des Chenes, speaking of 1865, the best wine year in France for many a day, says that none of the wines from the most sunny regions of France exceeded 14.10 degrees of alcoholic strength (equal to about 23 proof spirit.)

The fact remains that many wines are fortified, as Port is, to a pitch nearly double the natural standard, and a good many

other wines are fortified, though not to the same extent. And the question is, why?

The reasons are twofold: first, because the wine is not well made, and has not nerve enough to keep and travel; or, secondly, to please the vitiated taste of the consumer. Travelling implies movement that stirs up all sediment,—exposure to cold which precipitates soluble matter makes the wine thick, and so creates pabulum for fermentation: alternated with heat which sets ferment a working, and leakage which allows access of oxygen.

The practice of *vinage*, or fortification, in France is chiefly practised in the south, where seven departments formerly had the privilege of paying no duty on the brandy that was used for this purpose. The practice is vividly described and denounced by M. Terrel des Chenes in a tract which is an admirable illustration of the moral side of wine culture. M. Terrel des Chenes shows that the departments of the East, West and Center of France claim no privileges, though their climate is colder and wetter; for during the period of activity of the vine, the South has daily some 3.8 degrees C. of heat, and 63 per cent less rain; yet it complains that it is obliged to fortify its wines, because, first, they have too much sugar; and secondly, have not enough alcohol. M. Terrel des Chenes describes much of the common vine culture of the south of France as abominable. They plant the vines which yield the greatest amount of the poorest wine: the vines are allowed to grow rambling, so that sun and air cannot reach the grapes; these cannot ripen: when the vintage comes, green grapes and rotten grapes are thrown in pell mell, "to ferment if it can, and sour if it choose;" and this is the liquid which they claim to fortify clear of duty; whereas, he says, a Bordeaux wine, even though no stronger in bad years, requires no fortification. If, he continues, the wines of the south are too sugary and not alcoholic enough, it is because they do not take the trouble to convert the sugar into alcohol: and any premium on *vinage* would be a premium on the ignorance, carelessness and laziness which blight the processes of viticulture in the finest part of France.

Dr. Guyot, in his before-mentioned report, speaks of the wines of Roussillon as abundantly endowed by nature with color and strength, and deprecates the addition of alcohol, the depraved taste which de-

mands it, and the want of true commercial morality in the merchants who deal in it; and M. Maumendé, as well as M. Terrel des Chenes, affirms that wine may be made without any addition of alcohol. If the juice is really too concentrated to ferment itself dry, water it, and gather the grapes before their juice is so concentrated; if too thin, add sugar, and let it ferment with the grapes, because then the fermentation will be more likely to produce an alcohol and ethers like the natural. But the spirit of wine which has been produced by distillation at a high temperature contains products not natural to wine, and the spirit of beet-root, of potatoes and of maize contains many undesirable flavoring matters, and perhaps some day, says M. Guyot, "thanks to the poisons invented by chemistry, wine will be adulterated with spirit of turpentine or pitch, or with naphtha and spirits of bitumen, until the lake of Gomorrah will have nothing to envy."

Candor compels me to quote two writers of the highest repute who defend the practice of fortification. One is M. Thénard, the eminent chemist, quoted by de Vergnette-Lamotte, who asserts that it better some wines that are thin and acid, (which if too feeble in sugar should, according to sounder policy, have been sugared before fermentation), and that it enables the wines of the South of France to keep, (a thing better effected by more thorough fermentation, as Guyot and Maumendé and Terrel des Chenes say.) There is no doubt but that alcohol disacidifies wines by precipitating cream of tartar, and combining to form ethers with free acids; it checks fermentation, and suppresses parasitic vegetable growths. The other author who recommends fortification is the Rev. Dr. Bleasdale, to whom I would point with admiration as a patriotic and scientific oenologist, though I venture to doubt his soundness on this point. He advocates the throwing in of one, two or three per cent of very strong brandy, towards the close of fermentation, in order to fix and nullify the remaining albuminous matters and preserve some sweetness in the wine. But the Reverend Doctor takes Sherry and Madeira as the types to be aimed at, instead of a pure natural wine.

From a view of the whole matter, and from experience of the effects of various wines I would say, that natural wine is above all other to be preferred. Fortified wine contains fermentable matter in check; and this is believed from experience to be one potent cause of gout. The spirit used to fortify wine is liable to impurity, and if pure decreases the natural wine taste and substitutes mere heat. Yet it must be confessed that after a long time the added spirit seems to amalgamate and soften down, and, as in the finer sorts of sherry, goes along with the production of those *old wine* flavors of which Madeira gives some of the best examples.

The Japanese manner of keeping meat fresh in Summer is the following: The meat is put in a porcelain tureen and hot water is poured on the meat, covering it completely. Then oil is poured on the water, thus excluding the air. The coagulation of the albumen of the meat, effected by the hot water, is an additional means against putrefaction.

California grapes sold in Ashland, Oregon August 1st, at fifteen cents per pound; and yet there are people who think our market circumscribed by the little zone in which grape culture is carried on.—*Foto Democrat.*

RAISIN MAKING.

(By Thomas Hardy, Bankside Vineyards, Adelaide.)

Having heard that the place to see grapes grown for raisins, and how the manufacture of them was carried on, was in the Sacramento Valley, we took train for Davisville, seventy-six miles from San Francisco. After taking the train at Oakland, we skirt along the bay for many miles, winding round and round the points of land until we come to the steam ferry-boat, which takes the whole train, engine and all, across the bay. This ferry-boat is a wonder for us; it has four lines of rail, each capable of taking six of their long saloon cars. Our train of four and the engine, standing on one side of the boat, did not seem to list her over a bit. After crossing, the country is mostly in wheat and hay crops, except the lowlands near the river, which carry large numbers of cattle. Harvest and hay-work were going on in full swing, the one being close on the heels of the other, and in some cases both going on at the same time. Hay is being drawn into small stacks by rakes worked by two horses, and is afterwards pressed in bales with a portable press worked by two horses or mules, and the hay either sold or stacked in barns. In the wheat-fields the header is busy in all directions. They take off much more of the straw than I expected, very nearly a half of the length in a moderately high crop; three wagons attend each header to receive the crop and take it away to heaps ready for the threshing machine. I did not see any crops that would go over twenty bushels to the acre. Nearing Davisville the country to the right and left is all vineyards, and all planted at wide distances apart, and carefully cultivated.

Visited the "ranch" of Mr. C. G. Briggs, who is the largest maker of raisins in California. The railway passes through his vines, and the homestead is only a mile from the station. The vineyard is 450 acres, and Mr. Briggs has another of 480 acres at Woodland, twelve miles distant. Mr. Briggs was a away from home, but his son-in-law (Mr. Gould) kindly showed us round. The vines are principally the Muscat Gordo Blanco; and the oldest are only eight years. They are planted 10x8, but the younger planting is 10x16; they bear from 40 to 50 pounds to the vine, when not injured by any pest; they are neither staked, disbudded or topped, and no objection is raised to the fruit lying on the ground, as the climate is usually dry all through the time of the grapes ripening. Cuttings are generally planted; the latest idea being to plant cuttings three feet long, two feet laid horizontally in a trench and one foot brought up, and they are said to do well. Mr. Gould has 158 acres of his own planted in this way, and looking well. Pruning is done with strong shears, having handles about thirty inches long, and the cuttings are bundled up for use by a simple contrivance; they use them for the steam boiler and for other purposes, as wood is scarce in this part.

When the grapes are thoroughly ripe they are gathered and laid on trays about three feet by two feet six inches, made very light, and each holding the crop of one vine as a rule. They remain out between the rows, and are turned in about seven or eight days by placing an empty tray on a full one and turning both over. I believe I gave them this idea some ten or twelve years ago, as I know that my process of drying was copied from the Adelaide papers into the *Rural Press* of California. In about twelve or

fourteen days, according to the weather, the raisins are sufficiently dried, and are shot off the trays into boxes about the same size or a little larger, and deep enough to hold sixteen trays. Paper is put between every four layers, and they are allowed to remain in these "sweating" boxes, as they are called, in the packing house until wanted. The packing house is a large and lofty wooden building 230 feet by 90 feet, and the center was fitted up as drying-kilns last season to try and save some of the crop, as it turned out an unusually wet season. A table four feet wide runs the whole length of the building on one side, and the fruit is sorted and packed here into boxes of 5, 10 and 20 pounds; those of 20 lb. are in four layers, those of 10 lb. in two. The boxes are neatly made, and cleaned off with a revolving disc covered with emery paper, and are all of one size, the only difference being in the depth of the box. There are three different grades of raisins boxed besides the loose ones, which are packed in 50 lb. boxes and sold at six cents per lb. The boxes are all made on the place, and another building nearly equal in size to the packing room contains them and the fruit when packed; and another large shed is full of trays packed away. The quantity turned out in 1881 was 550 tons, but the 1882 crop was reduced to less than half by the grasshopper or thrip and the wet weather. The price got was \$1.75 for 20 pound boxes, \$1 for 10 pound and \$2.25 for four 5 pound boxes. Prunes are dried in three "Plummer" dryers, heated by fire. They take five or six days in the sun and two days in the kilns, and sell for fifteen cents per pound in small boxes. These and raisins are the only fruits dried. About 250 Chinamen are employed at the raisin making during October and November. They are overlooked by white men, one to about twenty-five of the yellow-skinned; they get from eighty cents to a dollar a day, and Mr. Briggs is afraid now that they are stopped from coming to the country that he will have great difficulty in carrying on the business.

The soil is a deep sandy alluvium, easily worked. A large portion is irrigated by cement pipes laid between every second row of vines at twenty inches in depth, with a hole for the water to come up through between every four vines. The pipes are made of sixteen parts gravel from the bed of a river to one part of cement, and the machine lays the pipe continuously in the trench as it travels along. Mr. Briggs is not quite satisfied with this system, and thinks that surface irrigation is the best after all. The water is raised with a thirty-six horse-power portable engine.

The land is all deeply ploughed once in the winter with single-furrow ploughs, and kept well worked with two-horse scarifiers and a pulverizer made with steel knives crossing each other. It is called the "Acme" cultivator, and is found very useful if used at the right time. The cultivation is very thorough, and scarcely a weed is to be seen. There are seven acres of soft-shell almonds, which are expected this year to yield from twenty-five to thirty tons. They got 14½ cents per pound for the last crop to go to Chicago. There are also several acres of apricot, plum and pear trees, the product of which is all sent to the canning factories in San Francisco. The whole establishment is a model of good management. Mr. Briggs traveled through Spain in the autumn of 1878 during the raisin making season, and saw nothing there to copy, their processes being found

by him to be quite unsuitable to a new country, where land is cheap and labor dear, and he came back fully persuaded that he could turn out in California raisins better and cheaper than any country in the world. I had the pleasure of meeting Mr. Briggs in the same train that brought us back to the city, and got many of these particulars from him. He also told me that he had not tried the system of dipping the grapes in boiling lye, the object being to make as many desert raisins as possible, as they fetch a higher price than pudding raisins. He also said that the kilns he had to put up last year to save a portion of his crop answered very well, and that he could get in twenty tons at a time, and by means of a steam coil in the bottom of each compartment could get up a heat of 130 degrees F., quite sufficient to dry them thoroughly. I saw here a very ingenious contrivance for taking the outer husks from almonds, and which is said to work very well, but I should like to see it at work, as I doubt whether it would not injure the soft-shell kinds. There is no doubt but this part of the country is admirably adapted for raisin making, the soil being, with the aid of irrigation, capable of producing the finest grapes, and the climate during the ripening nearly dry and free from the fogs and damp of the country nearer the sea. The land requires nothing more than deep ploughing to prepare for planting, and no stakes are used, as the grapes are allowed to lie on the ground, and are considered to ripen earlier than if kept trained higher. Oidium is very seldom seen to do any damage, the only trouble they have is the little vine hopper, which eats away the under side of the first leaves, and causes them to drop and leave bare the fruit, which consequently gets burnt with the sun.

Several kinds of Muscat grapes have been tried. One, under the name of the Cannon Hill Muscat, was found to set badly, but where a few Tokay vines were among them they set better. Mr. Blowers, at Woodland, is also a large grower of raisins, but I had not time to visit him, as I should like to have done. A very interesting article by him on raisin making in the first report of the Viticultural Commission can be found in the library of the Royal Agricultural and Horticultural Society, Adelaide.

Napa Notes.

Mr. G. Mighiavacca has a force of coopers at work at his wine cellar on Brown street, making barrels and tanks to increase the storage and shipping capacity of the cellar this year. The cellar has been thoroughly renovated and improved in many respects. Among other improvements we notice that on the main building the tile roofing is being removed and replaced with corrugated iron.

The new cellar in East Napa is now completed and in readiness to receive the machinery which will arrive from Crockett in a day or two. This cellar has a storage capacity of over 400,000 gallons and will commence operations in about two weeks.

Andran's cellar has also had its storage capacity largely increased by the addition of a large number of 2-500-gallon tanks. It is expected that a large amount of wine will this year be made at the cellar.

Jos. Mathos has been putting his new Lisbon Winery in shape, and expects to manufacture no inconsiderable quantity of wine. He made several improvements and is prepared to commence crushing as soon as the grapes are ripe.

It is estimated by wine men that fully 1,000,000 gallons of wine will be made in Napa City alone this year.—*Napa Register*

REPORT

Of the Finance Committee in
the Senate of the United
StatesUpon the Bill Relating to the Taxa-
tion of Fractional Parts of a
Gallon of Distilled
Spirits.

The Committee on Finance, to whom was referred the several amendments intended to be proposed by Mr. Stanford, Mr. Jones and Mr. Aldrich to the bill relating to the taxation of fractional parts of a gallon of distilled spirits, having had the same under consideration, report a substitute for the same, with the recommendation that it be adopted by the Senate.

It is proposed to amend the original bill only so far as is necessary to change the dates therein mentioned, in order to render its provisions operative.

The additional amendments, relating to the new subject-matter, relate to the following:

First—The extension of special bonding warehouse privileges, as now provided for by law, for the exclusive benefit of distillers of grape spirits to the distillers of spirits from apples and peaches.

Second—The production of pure sweet wines from grape juice, with the use of grape spirits free of internal revenue tax, limited to necessary requirements, not over 24 per cent.

Third—The fortification of any wines intended for exportation, free of tax on the grape spirits used in such fortification.

1. SPECIAL BONDED WAREHOUSES FOR FRUIT BRANDIES.

The law relating to the warehousing of grape brandies was passed in order to grant privileges to producers whose necessities were identical at that time with those of the producers of brandies now derived from other fruits. The object of this law originally was to enable distillers of grape spirits to keep in bond, without paying tax, for three years, their products until they should be sufficiently matured for the market. Prior to the passage of this law the distillers of grape spirits were required to pay the internal revenue tax on the same at the time of distillation. This requirement of law imposed such onerous duties upon producers that many were prevented from utilizing wines which were useful only for distillation, or which constituted surplusage in the market on account of the heavy burden imposed upon them. Only a few who commanded sufficient capital were able to pay this tax at that time, as they were compelled to hold such goods sometimes for a considerable period in order to mature them for consumption. At that time vine growers, especially in California, were much disheartened and in some cases were uprooting their vines and in many cases also were throwing away or destroying their wine products which could not be otherwise utilized. The practical value of the law which was passed to enable them to place their brandies in special bonded warehouses was speedily demonstrated; the interests of vine growers immediately revived; instead

of uprooting vines, more were planted; many distilleries were established, and the market now is well supplied with choice and well matured products. Distillation of brandies from fruit enables the producer to utilize material which may fail to find profitable markets otherwise. It enables the vine grower to obtain profit from inferior goods which are not equal in quality to standard articles, and also to derive some benefit from such waste substances as are left over after expressing grape juice from skins, seeds and other residuum of the wine press.

Practically the same necessities now prevail in all fruit growing districts. Large quantities of many kinds of fruit, more especially apples and peaches, are being utilized through distillation, but owing to the fact that no bonding privileges are extended to this class of products there is not only great hardship experienced from the levying of the internal revenue tax upon the same, but also great incentive to fraud. It has been observed also that where the tax on spirits intended for consumption is levied and collected at the time the goods are first produced, the excessive cost of the same, owing to the imposition of the tax, cause holders to force them upon the market long before they are matured and fit for use as beverages. It is, therefore, greatly to the interest, not only of the producer and the Government, but also of the consumer, that the amendment proposed by this committee extending these bonding privileges to the producers of fruit brandies should be enacted into law. As a means to prevent fraud it would certainly result in an increase of public revenue, and is therefore, properly speaking, a revenue measure.

2. THE FORTIFICATION OF SWEET WINES.

The amendment as reported by the committee provides for the use of wine spirits distilled from grapes, free of tax, in the fortification of pure sweet wines, also produced from grapes, within certain limitations as to time and place and quantity of spirits to be so used, and with provisions intended to prevent fraud in such use. The proposed use, free of tax, of wine spirits relates principally to sweet wines for exportation, and incidentally, but with equal reason, to such sweet wines produced for domestic consumption. It is impracticable to provide for the exportation of such sweet wines, free from internal revenue tax, without granting the privilege of free wine spirits in such wines for domestic use.

That domestic productions should be permitted to be exported free of tax, wherever, practicable, cannot be disputed. The commerce of this country entering into competition in other countries could not successfully enlarge the field for American industry if domestic products were taxed before exportation. The internal revenue tax collected on wine spirits necessarily used in the fortification of sweet wines constitutes in effect a tax upon sweet wines, varying in amount in proportion to the amount of spirits used. The incidental tax represents an increase average cost to the producer of about 20 cents per gallon, which is equal to 50 per cent of the cost of ordinary production. It appears that the sweet wines of this country—such as ports, sherris, angelicas, sweet muscels, etc.—can be produced and exported and maintain their place in foreign markets in successful competition with similar products of other countries, if this internal revenue tax is remitted by the Government, although by reason of cheaper labor and capital, the profits in such foreign commerce may be

small. The wine producers of this country have extended their plantations so rapidly during recent years, that by fair computation, based upon the products of vineyards now bearing, it is known approximately that the vintages will immediately increase so rapidly, that some outlet into foreign markets must be sought in order to dispose of surplus wines and to prevent a forced distillation, which is not desired by nor profitable to the producer.

Wines not being specifically taxed as such in this country, there are no official and reliable statistics to determine the production of vineyards, but estimates have been made by official commissions of States, local societies and commercial agencies, sufficient to establish the fact that this industry has already assumed large proportions. The products vary in relation to given areas of vines planted from year to year, owing to the varying yields of vines, caused by differences in climatic conditions from season to season. In 1884 the vintage of California alone was reliably estimated at fifteen million gallons, which fell off in 1885 to one-half that amount. The vintage of all the States in 1884, was probably about twenty-five million gallons. The product of California in 1881 was based upon an area of vines planted equal to no more than one-third of the present area, much of which is coming into bearing for the first time during the present year. It is estimated that the vintage of California this year will amount to from twenty to twenty-five million gallons, unless reduced, as in the case of the last vintage, through causes controlled by nature. Within three years the average normal product of that State will probably reach fifty million gallons. Other States are also increasing their vintages. It is scarcely probable that domestic consumption will keep pace with this large increase of production. It becomes apparent, therefore, that the surplus product must depend upon foreign markets for an outlet, or many millions of gallons of wines must be distilled and the production of grape brandy will be correspondingly increased, probably beyond domestic demands, resulting in a feverish and unhealthy condition of commerce detrimental to all kindred industries.

Coincident with this rapid increase in viticultural industry in this country, there has been in the older vine-growing regions of the world serious diminution in products, owing to vine diseases which have made such ravages, while the studies of remedies have been in progress, that it will require a generation to restore the vineyards to their normal producing capacity. One of the most notable results of this misfortune is shown in France, where now the importation of wines vastly exceeds exportations, the excess of importation equaling more than one hundred million gallons. The market demands for wine have increased in the same proportion as civilization, and the means for transportation have progressed throughout the world, but by reason of the causes named, the supplies have diminished and prices everywhere have been constantly advancing. It is, therefore, with reasonable hope of success that the producers in this country are attempting to establish a foreign market for American wines. The opportunity now presented is free from unusual and difficult competition, and may enable our producers, not only to extend their markets, but also to establish a reputation which may be maintained even after the ravages of disease in European vineyards have been overcome. Meanwhile

the markets in this country are steadily increasing in their demands, so that American vine growers confidently expect not only to dispose of the products of the vines now planted, at fair profits, if adequate facilities for the present emergency are granted them for exportation, but also to lay the foundation within this generation for a vast increase upon their present efforts. To illustrate the great possibilities of such an industry once firmly established, it is only necessary to refer to France alone, whose territory is about equal to that of California, but whose area suitable to the culture of the vine is much less; French vintages, during the ten years prior to 1878, amounted to an annual average of 1,400,000,000 gallons.

Witnessing as the world does the strenuous efforts put forth, and the great expenditures authorized by European Governments to preserve this industry from dangers of vine diseases, and also the enthusiastic efforts of new countries populated by Europeans, such as Australia, Algiers, and the Cape of Good Hope, to encourage the development of viticulture, it would seem plain that it is the part of wisdom for this Government at the present time, not only to relieve our vine growers from all obstacles which our laws create to their prejudice and to the restraint of their efforts, but also to lend such encouragement as may be needed in the infancy of a new industry.

The amendment proposed, providing for the use of wine spirits free of tax in the necessary fortification of sweet wines, seems to be a condition precedent for the successful competition of such wines in foreign markets.

Sweet wines are those in which a portion of the natural sugar of the grape is preserved from fermentation, as distinguished from dry wines in which there is no saccharine matter, the natural sugar of the latter having been exhausted in the process of fermentation. Sweet wines, as will be shown, are preserved from further fermentation by the addition of a certain quantity of distilled spirits. Such wines have legitimate and proper uses, and are in constant demand throughout the world and in all civilized communities, even in those places where popular opinion forbids their use as ordinary beverages. They may be said to have a universal use as medicines, aside from other uses as luxuries of the table and essentials in culinary operations. There can, therefore, be no reasonable objection from any standpoint of opinion to the encouragement of this industry to the extent that may be necessary to satisfy legitimate commercial demand. The civilized world, outside the range of viticultural possibilities, is a very large one and offers to our producers the same opportunities that are earnestly sought for by those of other countries. This country also, by reason of the successful establishment of this industry, is saved from a large drain upon its resources which would otherwise be caused by importations.

Improvement in the quality of American wines is equivalent to improvement in opportunity, inasmuch as, in the contest of industry to secure markets, the best products necessarily secure the best advantages. It is therefore important to consider this question with reference to the possible results of proposed laws arising out of their influence upon the quality of products. The experience of the world, attested by the most competent experts and commercial authorities, shows that for the

fortification of sweet wines, only the best quality of wine spirits derived from grapes should be used. Fortified wines are especially rich in the alcoholic principle, and as they are largely used by physicians and druggists, and for the support of failing health in old age under certain circumstances within the range of medical practice, this alcoholic principle, associated with others derived from the pure grape juices, should be of the best quality, free from all objectionable features. The use of wine spirits, free of tax, produced in pure, unadulterated condition at the vineyard where the wines are made, will tend largely to such improvement in the general average quality of sweet wines, that this possible merit alone should be sufficient reason for the enactment of the proposed law, although from the economical standpoint reasons of a more immediately practical nature are given. The much greater cost of pure wine spirits frequently causes the substitution of cheap, low-grade alcohol in the fortification of wines. By remitting the tax, as is proposed, this inducement towards deterioration of quality will be removed, and the sweet wines of this country will soon become popular in the markets of the world as superior in essential merits.

Our present internal-revenue laws, so far as the production of sweet wines is concerned, operate to prohibit exportation and to encourage deterioration rather than improvement in quality of products. The proposed amendment reported by the committee is therefore simply an act of justice to our people as well as a measure intended to advance that prosperity, upon which a wise government must depend for its support.

A discussion of the principles and processes involved in wine-making is necessary to show that in order to permit exportation of sweet wines free of tax, the tax on grape spirits used in fortifying such wines must be remitted at the time they are first made—at which time the producer does not know whether his products will ultimately find markets in this country or elsewhere. When such spirits are used it is obviously true that they must be either tax paid or free of tax, and if tax paid it becomes thereafter, when these products are distributed in commercial houses and cellars throughout the country, impossible to establish any rule by which, for purposes of exportation of any portion of such wines, the tax that has been paid may be remitted through any system of drawbacks, because the quantity of spirits that has been used, after the wines are once upon the market, cannot be determined in any given case.

Principles and processes involved in sweet-wine production.—Alcohol, is a product, resulting from the fermentation of liquids containing some one of the various kinds of sugar, albuminous or fermentable matter and water, acted upon by a living organism or germ.

Substances containing starch, such as potatoes, wheat, corn, rye, &c. may be subjected to treatments by which the starch is converted first into what is chemically known as *grape sugar*, which is then subject to alcoholic fermentation.

During the development of the ferment germs or yeast, sugar is converted into alcohol and carbonic acid gas, the gas escaping unless confined.

The quantity of alcohol that may be produced in a given liquid under fermentation depends upon the quantity of sugar contained therein. It is sufficiently accurate to say that a liquid containing 20 per cent.

of sugar will, after complete fermentation, contain 10 per cent. in volume of absolute alcohol, i. e., the sugar is converted into equal parts of alcohol and carbonic acid gas. For this reason wine-makers test the juice of grapes before the vintage by means of simple instruments, which by specific gravity show the percentage of sugar and determine when the fruit is sufficiently ripe. Knowing the saccharine strength of the juice, as it is called, the must, the wine-maker knows what will be the alcoholic strength of his wine, and also the quantity of brandy that can be distilled from such wine. For instance, 100 gallons of grape juice containing 20 per cent. of sugar will produce wine 10 per cent. strong in absolute alcohol, and, if distilled, 20 gallons of proof spirits—proof spirits meaning a distilled liquor containing 50 per cent., by volume, of absolute alcohol.

The wine yeast will act only under certain conditions of warmth, &c., and may be obstructed by the presence of certain substances, one of which is an excess of alcohol. Usually it is found impossible to obtain by direct fermentation more than 15 per cent. of alcohol, often not more than 12 or 13 per cent. in the original liquid, the excess of sugar remaining unfermented. This is caused by the alcohol, which commences to retard the action of the yeast, often, when 12 per cent. of alcohol has been created and generally stops action at 15 per cent. Grape juice, therefore, having 35 per cent. of sugar, would generally stop in fermentation when from 26 to 30 per cent. of sugar has been converted into alcohol, leaving in the wine from 9 to 5 per cent. of sugar in its natural state. Such sweetish wines would, however, be liable to slight changes of condition during warm weather, and especially during transportation, causing cloudiness and a fermenting taste with a discharge of carbonic-acid gas. Raising the alcoholic strength higher by means of an addition of distilled spirits, effectually prevents further disturbance and enables the wine to clear itself and become bright. In this condition it may even be subjected to the atmosphere without spoiling. This addition is called fortification, and may vary in quantity according to the fermentative excitability of different wines, and the condition of change of climate and motion to which commerce may subject them.

In actual practice the strength of fortified wines, including both the spirits derived during fermentation and the distilled spirits added in fortifying, varies from 18 to 22 per cent. As it is an expensive operation, the wine-maker fortifies only as much as necessity and commerce demands. It appears that there may be some rare cases when even 24 per cent. of strength is required for exportation, as is recognized by the tariff of this country, which admits foreign wines up to 24 per cent. Our American producers say that with the privilege of fortification up to 24 per cent. they would generally exercise it for domestic use only to 20 per cent., and for long voyages and hot climates not to exceed 22 per cent., but that for safety in practical work, where it becomes a nice calculation to determine the exact strength that is being produced, they require at least two degrees of margin to operate within so as to avoid unintentional violations of law.

In the origin of our sweet-wine production, such wines were the natural result of excessive saccharine in the must, which could not be completely fermented, and fortification was resorted to for the sake of preserva-

tion. The sweet wines of Portugal, Malaga, &c., became standard articles of commerce, always fortified as described. As the taste and usefulness of these products became popular, two important methods for arriving at similar results where the natural sweetness of grape juice was not in excess of the amount that would ferment completely dry, i. e., to the complete conversion of all the sugar into alcohol, were followed, viz:

(1) The partial desiccation of the fruit so as to increase the saccharine strength by the evaporation of some of the watery parts; the practice as followed by the Hungarian Tokayer wines and the *vins de paille* of France.

(2) The arrest of fermentation by the addition of distilled spirits, so as to prevent all the sugar from alcoholic conversion.

In California all of these legitimate methods are more or less practiced during the vintage. In 1855 an extraordinary degree of heat and drought so rapidly developed sugar in the fruit that in many cases, where it was intended to ferment dry wines, sweet wines were produced from necessity. There were instances where even 35 per cent. of sugar was found in the must, the fermentation generally stopping with 5 per cent. of sugar unconverted. In a year of large production such wines would be overproduced for domestic markets, and would become a loss to the producer if facilities for exportation were not available. The ordinary saccharine strength of grapes in portions of California, where sweet wine is a specialty, varies from 24 to 28 per cent., and the practice of arresting fermentation at the proper moment by adding spirits is in vogue, as in France and other countries similarly conditioned, when sweet products are desired.

When fortification is used, as in the latter case, it must be at the moment when the wine maker discovers, by testing with a saccharometer the fermenting juice, that there remains only the amount of sugar which he has determined to preserve. Hence there is no time for delay: he may even be obliged to do this work while watching his rats in the middle of the night.

The sweetness of sweet wines varies according to commercial demands based on varying popular tastes. Port wines are demanded sometimes with four and sometimes with ten per cent. of sugar.

The quantity of distilled spirits that must be used to fortify wines up to 22 per cent will vary:

(1) With the original saccharine strength of the grape juice.

(2) With the amount of sugar preserved from fermentation.

The following examples of actual practice are given to illustrate these varying necessities:

(a) The grape juice contains 24 per cent of sugar; wanted, a sweet wine with eight per cent of sugar unconverted and 22 per cent of alcoholic strength. When the fermentation is checked 16 per cent of sugar has been converted into 8 per cent of alcohol; add spirits sufficient to increase the strength to 22, which will represent 14 per cent of distilled alcohol in the wine when finished, together with the 8 per cent fermented.

Owing to the imperfections of original calculations, the varying strength of the spirits used, and the nice mathematical skill involved in fortifying so as to produce a result exactly as intended, samples of the wines are subsequently distilled, and if

found too strong they are blended with lighter wines, and if not strong enough they are again more accurately fortified or blended with stronger wines. This finishing work is often the result of the demands of trade, when agents of purchasers visit the wineries, and must be accomplished during a period following the vintage. Many wine makers are uneducated and incapable of exact work. These depend largely upon the agents of commercial houses to inform them of deficiencies. The period for fortification begins, therefore, with the time of vintage of the earliest grapes in the warmest places and extends for some time after the wine making has finished in the latest. By close pressure the most skillful men in California could be confined to a period from the 1st of August to the 1st of January, provided no other method of making sweet wines than those in vogue there and in Europe were followed.

(b) The grape juice contains, as before, 24 per cent sugar; wanted sweet wine with only 4 per cent sugar. In this case 4 per cent more of the sugar would be suffered to ferment, making the natural wine 2 per cent stronger and requiring 2 per cent less added alcohol, or only 12 per cent.

(c) The grape juice contains 30 per cent sugar. In this case to preserve 8 per cent would mean fermentation of 22 per cent into 11 per cent alcohol and fortification with 11 per cent.

Ordinarily sweet wines, like ports, will carry about 5 per cent sugar, and require 10 to 12 per cent strength of alcohol by fortifications.

The internal revenue tax on proof spirits (50 per cent absolute alcohol) is 90 cents. The spirits required to fortify sweet wines—10 to 12 per cent—would represent 20 to 40 per cent of proof spirits, or would average an equivalent in tax of at least 20 cents per each gallon of wine made. Add to this the cost of the brandy (if the proper fine new grape spirits are used) at \$1 per gallon (free of tax), and or about 20 cents, which added to the tax makes the cost of fortification of a gallon of port wine 40 cents, exclusive of the cost of the wine, which has been fortified. Such wines of ordinary commercial grade can be purchased in the south of France and Spain at from 40 to 50 cents per gallon, the spirits used in them not paying tax when exported. Hence it is apparent that American sweet wines, taxed for the fortification at least 20 cents per gallon, could not be exported and enter into successful competition with similar foreign wines in such markets as England, Russia, Mexico and South America.

Fortification with free spirits for domestic use.—When sweet wines are made by any of the legitimate, usual methods, the producer has no knowledge of their ultimate destination. When they are sold to the wholesale dealers they are kept for maturing by age, and, as they arrive for storage, they are necessarily mixed more or less, and all possible traces of record as to the amount of spirits used in fortification must be lost. It is therefore impracticable to establish a drawback for exportation; and to relieve the exporter from the tax the original spirits used must be free of tax.

Foreign wines are admitted up to 24 per cent of alcoholic strength without tax on the spirits used in fortification. Transportation from the Pacific coast to the Atlantic costs about 15 cents per gallon per carload lots, and more for single packages. For these reasons the producers claim that the tax on fortifications should be removed as well for domestic as for foreign markets.

The present production of pure sweet wines in all the States is estimated at about 1,000,000 gallons, representing fortification paying a tax of not more than \$200,000. The demand in this market cannot rapidly increase for this class of wines, which are not generally consumed as beverages, as are lighter clarets, hocks, etc.

Sweet wines in States other than California.—In vine growing States east of the Rocky Mountains grapes do not acquire sufficient saccharine strength to make sweet wines according to the old world and California methods. In these districts an imitation sweet wine is made by adding sugar to dry wines and fortifying to prevent the sugar from fermenting. Hence it is that the Eastern wine makers require the period for using free grape spirits after the usual time of wine making. Their method of sweetening is such that they can select their time for the operation of fortifying, and in the case of withdrawing grape spirits from bond for such purpose they can give due notice and the revenue officers can arrange for proper supervision to prevent fraud. The brandy producing possibilities of Eastern vineyards being small, owing to deficiencies in saccharine contents of grapes, the wine makers on this side of the continent demand the right to withdraw grape spirits from bond free of tax for fortification of sweet wines and the extension of the period for operation until the 1st of May. The California producers would be satisfied with spirits used only at the place of distillation.

3. FORTIFICATION OF OTHER WINES EXCLUSIVELY FOR EXPORTATION.

Spirits used in fortifying any wines, such as clarets, hocks, &c., which do not need the same for preservation, lead to the impositions upon the public, the object of such fortification being generally to enable retailers to double their wines by adding water, in which operation, to cover the fraud, they ordinarily use also artificial coloring and flavoring matters and antiseptic drugs, intended to keep the mixture bright and free from organic changes. The wine industry would be seriously injured if free spirits were permitted in this market for fortifying any wines except those requiring the same to preserve sweetness. Fortified sweet wines cannot be used for "stretching" with water, while fortified dry wines are so used, and free fortification of dry wines for domestic use would decrease cost of adulteration and increase an evil already serious.

Certain foreign markets, however, demand more or less fortification of dry wines, especially such as heavy-bodied, dark-colored clarets. The French Government admits foreign clarets up to 15 per cent. of alcohol at the lowest rate of duty, and the trade there is supplied with millions of gallons of such wines from Spain, containing about 3 per cent. of distilled spirits. These wines are used to bring up the body of French wines deficient in strength, and also to blend with "second wines" made by fermenting sugar and water on the skins and seeds, from which the first fermentations have been expressed.

Imported wines at Bordeaux, not containing the full quantity of alcohol permitted, would be sold at a discount. The English markets are closed to wines over 13 per cent., unless more than double taxed. In tropical countries, fortified wines are demanded to insure safety in rough handling; in very cold northern countries, because strong drinks are preferred. Hence our producers, who are permitted to export

grape spirits free of tax, ask the same privilege for grape spirits when added to any wines according to foreign demand, provided that when re-imported, the tax remitted for exportation shall be collected at the port of entry.

4. PROVISIONS TO PREVENT FRAUD.

The provisions to prevent fraud are as much to the interest of producers as to the Government, as opportunity for fraud drives out of competition all except the unscrupulous. There are no opportunities for fraud under the proposed legislation which do not exist in greater degree under existing laws, and the penalties for wrongdoing are more severe than are now provided.

The original draft of the provisions contained in this proposed amendment, was submitted to the Secretary of the Treasury for such revision by the proper officers of his Department, as might be necessary to perfect it for the purposes intended, and especially for the prevention of fraud. As reported to the Senate, it is the perfected result of careful consideration, both on the part of the Commissioner of Internal Revenue and this committee. With respect to the provisions relating to the prevention of fraud under the privileges proposed to be granted for the use of wine spirits free of tax, the Commissioner of Internal Revenue in a letter to the Secretary of the Treasury, a copy of which has been furnished to this committee, under date of May 7, 1886, says:

"It does not occur to me to suggest that if the privileges of fortifying wines as proposed should be deemed expedient, any better safeguards than those provided in the bill can be devised. In leaving the matter of regulations to this office subject to your approval, I conclude that the proposers of the bill are willing to abide by any regulation, no matter how severe, which, in our opinion, is necessary to prevent fraud."

In a communication from the Secretary of the Treasury to this committee, under date of June 12, a suggestion of the Commissioner of Internal Revenue was submitted relating to the prevention of possible fraud through rectification. The change suggested in this respect is incorporated in the amendment reported by this committee. All possible care has therefore been exercised in the preparing this measure, and we believe that its enactment will serve to protect the interests of the Government in all respects, while at the same time subserving the ends of justice and the interests of the public.

5. CONSIDERATIONS RELATING TO PUBLIC POLICY.

Questions as to public policy, as well as those relating to justice to a particular industry, are necessarily involved in the consideration of the proposed law. This committee has assumed that there can be no valid objection to granting to producers of all fruit brandies the same privileges as to warehousing that are now granted to distillers of grape spirits, nor to the exportation of wines free of internal-revenue tax.

It has been shown, however, that with respect to the fortification of sweet wines, the privilege of exportation without tax cannot be granted without incidentally granting also the use of grape spirits free of tax in fortifying such wines, whether intended for domestic or foreign markets. We have cited, in our opinion, sufficient reasons, however, for the remission of this tax on sweet wines for domestic use; but a further brief discussion of established pol-

icy will serve to explain more fully the views of this committee.

Having shown the necessity of relieving sweet wine producers from this tax on their products, in order that they may extend their industry and compete successfully in the foreign markets, we believe that no proper objection can be made to the incidental release of the same tax on sweet wines used in domestic consumption, unless it appears that the loss of revenue thereby entailed would be an injury to the interests of the Government irretrievable from other sources of revenue.

It cannot be assumed that any product of domestic industry which has once been selected by the Government as a source of revenue through taxation should forever remain subject to tax. On the contrary, it has been an established policy to relieve industry from taxation wherever practicable, whenever the interests of the people may be benefited by such action. Many different products which have from time to time, according to the necessities of the Government, been taxed, have been relieved from such taxation as circumstances have changed. It has also been our established public policy to collect revenue in such manner as to promote, if possible, incidentally, the prosperity of the people, and in no case has taxation been insisted upon where it has been shown to the satisfaction of Congress that industry has been injured thereby.

The industries of the people are primarily protected and fostered for the benefit of those engaged in them, and to insure thereby the creation of public wealth as a foundation for national strength and the support of the common Government. Any restriction placed upon industry not demanded for the welfare of the people must result more or less in weakness of the Government supported by the people, and also in unjust discrimination between legitimate industries. In estimating the loss of revenue that may incidentally be caused by the enactment of proposed law, the basis of calculation, so far as the interests of the Government are concerned, must be considered with reference to the tax now derived from domestic consumption of sweet wines. By such calculation the loss of revenue on sweet wines produced and consumed in this country would not exceed \$200,000 per annum, and may probably be even less, as it does not appear that in all cases grape spirits would be used to the absolute exclusion of other spirits. Such reduction in public revenue would not under present circumstances produce an injury to the Government, for reasons that are manifest without further discussion. To insist on this tax, therefore, would be an act of injustice to a laudable industry, without benefit to the Government.

Furthermore it may be argued that this tax on sweet wines was not contemplated by the Government when levying tax on distilled spirits, but is even contrary to established policy with respect to wine production. In respect to foreign wines our laws make no distinctions between fortified and unfortified wines. It being recognized that no genuine wines, even if fortified, contain an alcoholic strength greater than the amount named, all foreign still wines not exceeding the strength named are taxed at one uniform rate per gallon. With respect to domestic wines no tax has been specifically levied, and it may be therefore asserted that it has been the policy of this Government up to the present time not to oppress by taxation this infant industry, at least during the early stages of its development and during that period of time in which producers are forced to submit themselves to long-continued self-sacrifice while waiting for the growth of vines, the enlargement of experience through costly experiments, the maturing of products and the attempt to

popularize their brands in markets heretofore prejudiced in favor of established reputations. If it had been the intention of this Government to make a distinction between fortified and unfortified wines of domestic production for purposes of taxation, the same rule would necessarily have applied in taxing foreign products and there would have been levied an additional tax upon the foreign distilled spirits used in fortifying foreign wines.

It cannot be urged that this Government intended specifically to determine the amount of alcoholic strength that should be contained in genuine wines, because no limit has been placed upon the amount of such alcoholic strength that may be obtained without tax on wines through simple fermentation. Natural wines unfortified may vary in alcoholic strength greatly, and in some cases such natural wines have been known to be produced, containing as high as 18 per cent of alcohol, although such cases are rare, on account of the difficulties encountered in fermenting to such high degrees. If it were possible for wine makers to produce wines without the addition of distilled spirits to any degree of alcoholic strength, there would be, under existing laws, no tax levied upon them. The degree of alcoholic strength necessary to the preservation of sweet wines may be considered a legitimate part of the genuine wine which is not considered as a special subject of taxation by the Government, as is shown by the uniform tax levied upon foreign wines whether fortified or unfortified. The release of the tax on sweet wines would therefore create no embarrassing precedent, inasmuch as foreign sweet wines are admitted without tax upon the spirits contained therein. Indeed a positive precedent for the proposed law has already been established in respect to the production of vinegar, alcohol for such purpose being permitted free of tax.

In view of the immediate prospective increase in American vineyards the enforcement of the present law taxing sweet wines would be prohibiting exportation, causing demoralization in domestic markets and unhealthy competition. All surplus of sweet wines would be forced upon the domestic market at exceedingly low rates, causing the producers to suffer loss and dealers to make extraordinary efforts to secure increased consumption of fortified wines beyond the normal demand; or, in case resources failed in this direction, such surplus would be forced to distillation, and brandies in excess of normal demand would be placed upon the market, causing serious conflict with other spirit industries and unnecessary losses to industry. The proposed law, however, will open the door to exportation and relieve the market from surplus stocks.

The rapid exhaustion of vacant lands, suitable for settlement and agricultural enterprise, cause us also to favor any plan by which the greater number of people may find homes within a given area. Viticultural industry enables families to be comfortably supported on small tracts of land and to utilize soils that would be otherwise left waste. Lands which are now devoted to and specially sought after for viticulture are generally useless for any other purpose than simple grazing. Such lands when devoted to the latter occupation require to be held in large areas supporting, relatively a small population, whereas under successful viticulture dense population may be comfortably settled thereon. In other words, the encouragement, by simple acts of justice, such as are proposed in the amendment under consideration, of viticultural industry will multiply very largely the opportunities for agricultural settlement and will postpone for many days the grave problem as to territorial area sufficient for the increasing population of this country.

It is certain that under the limitation of freedom from tax, provided for in the amendment, to grape spirits, there can be no hardship to producers, because it is shown satisfactorily that the vineyards of this country even now produce brandies largely in excess of the amount required in fortification of the relatively small proportion of wines that are preserved sweet. There is therefore no necessity for enlarging this privilege and no need of further complications, the vineyards of the country being sufficient in themselves for all their own proper demands.



ISSUED FORTNIGHTLY ON FRIDAY MORNING BY

E. C. HUGHES & Co., - - Proprietors.

CHARLES R. BUCKLAND, - - Editor.

Office, 511 Sansome street. Postoffice Box, 2366

TERMS—PAYABLE IN ADVANCE.

no copy one year \$3 00
One copy six months 1 75
including city delivery, United States, or Canadian
Postage.

Entered at the Postoffice as second class matter.

AGENTS.

ANAHEIM MAX NEBELUNG
CLOVERDALE, Sonoma Co. J. A. CARRIE
DIXON, Solano Co. A. R. STORY
DUNCAN'S MILLS, Sonoma Co. C. F. SLOAN
FRESNO H. C. WARREN,
Golden Rule Bazaar
GEYSERVILLE, Sonoma Co. D. LEPP
HEALINGSBURG, Sonoma Co. A. RALTZELL
LIVERMORE, Alameda Co. GEO. BECK
MAXWELL, Colusa Co. M. NATHAN
SANTA ANA R. F. CHITTON
SAN JOSE, Santa Clara Co. E. B. LEWIS
SANTA ROSA C. A. WRIGHT
STOCKTON W. H. ROBINSON
WINDSOR, Sonoma Co. LINDSAY & WELCH
WOODLAND, Yolo Co. E. BERG
HONOLULU J. M. OAT, Jr. & Co

FRIDAY SEPTEMBER 10, 1886

Recognition

Our friends in the Fresno Viticultural and Horticultural Association recognize the value of a journal like the MERCHANT, guarding and advancing their interests, and give effect to their good wishes in a very practical way, as will be seen by the following resolution:

Official.

FRESNO, CAL., April 5, 1884.

Proprietor S. F. MERCHANT.—Dear Sir: Below a copy of the minutes of the last meeting of the Fresno Viticultural and Horticultural Society that is of interest to yourself.

Resolved.—That this Association recognize the SAN FRANCISCO MERCHANT as one of the best organs of the Viticultural and Horticultural interests in the State, an exponent of their views and able advocate of their interests, and moreover as a paper which has taken more than ordinary interest in the prosperity of Fresno county. We agree to give the publisher our liberal support while that journal pursues the course for which it has hitherto been distinguished.

Moreover, we suggest that manufacturers and dealers in agricultural implements and other merchandise who wish to call our attention to their goods, aid us and other viticulturists in maintaining the SAN FRANCISCO MERCHANT on a sound footing, by giving it a large share of their advertising patronage.

Be it further resolved that the Fresno Viticultural and Horticultural Society tender its thanks to the SAN FRANCISCO MERCHANT for past favors.

C. F. RIGON, SECRETARY.

NEW ZEALAND

Loan and Mercantile Agency

COMPANY.

(Limited)

CAPITAL - - - \$17,500,000.
RESERVE FUND - - \$1,325,000.

SAN FRANCISCO OFFICE,

314 California Street.

Receives CONSIGNMENTS for sale in AUSTRALIA and NEW ZEALAND. COLLECTS Bills and buys and sells EXCHANGE on those Colonies. Orders for Australian SEED WHEAT, New Zealand ORCHARD and RYE GRASSES, etc., etc., promptly executed. WALTER F. LAWRY, MANAGER.
HERBERT FOLGER, Accountant.

THE STAKE SEASON.

The season is again coming round when grape growers should prepare to lay in their supplies of stakes. If they wait till later in the season they are liable to be delayed through the difficulty always experienced in supplying everybody at once. Besides it is advisable to obtain the stakes before the rains set in as they will be dryer, easier handled and more serviceable in addition to the lesser difficulty in hauling at the present season.

OUR HAWAIIAN TRADE.

Another month has passed and shows a continued increase in our trade relations with the Hawaiian Kingdom. In fact the exports of produce and manufactures from California, during August, exceeded those of any previous month this year, and are the largest that we can find any record of for several years past. The average monthly output from San Francisco to the Islands has been placed usually at \$250,000, making a total of \$3,000,000 per annum. But in August our exports exceed \$300,700 or at the annual rate of \$3,684,000. This is a gain of \$40,000 in a single month and there has been no apparent reason for such a large and sudden increase in the consumption or requirements of our Island friends. The P. O. Advertiser of Honolulu recently stated that the MERCHANT's estimate of this trade was somewhat large, but subsequent events have fully justified our former expressions of opinion. The largely increased sugar crop of this year doubtless affects the demands upon California for supplies, and had not sugar prices ruled so unprecedentedly low of late there would have been a much larger sum expended in California. The Islanders, when they have money, are not slow in spending but have lately, owing to force of circumstances, been compelled somewhat to practice retrenchment. We in this State have no cause for complaint, however, as we obtain cheap sugar and find an outlet for more than \$3,000,000 worth of produce annually. Our exports in August were as follows:

Admitted—	Value.
Free by Treaty	\$242,034 50
Dutiable	54,298 32
Free by Civil Code	4,370 58
Total	\$300,703 37

In addition to the above there were shipped from Port Townsend, last month, 2,400,000 feet of lumber and 153,000 shingles valued at \$26,432.15. This was an increase of \$11,373.84 over the lumber trade of July and makes a total output of Pacific Coast trade to the Hawaiian Kingdom of \$327,135.52 in a single month.

For a mere handful of people, some 60,000 all told, this is a very remarkable exhibit. They take California produce to the extent of five dollars per capita every month, or \$60 per annum. The Hawaiians consume more Californian produce than any other country in the world except the United Kingdom, and if our wheat shipments were excluded they would stand upon record as the best customers. It is unnecessary to say more as the importance of this trade is apparent to every sensible man of business.

TOO PREVIOUS.

Referring to the action of the San Francisco Chamber of Commerce in proposing to impose a heavy license tax on representatives of Eastern houses doing business in this city, Bradstreet's says: While this project is under consideration it would be well for the taxing authorities to bear in mind that anything in the nature of a discriminating tax—that is, a State tax discriminating against the citizens or products of their States—cannot be supported under the Constitution of the United States. This point was settled in a late case originating in Michigan (Walling vs. People), where the Supreme Court of the United States held that a discriminating State tax imposed on commercial travelers from other States was invalid.

THE HONESTY OF WINE MAKERS.

Mr. F. Pohndorff told us the following fact, which may set those thinking who radically condemn wine as a beverage for men who have the true manliness to use it in due moderation as the best table drink for the preservation of health. In 1874, on a trip to the island of Cephalonia, Greece, for the purchase of wines, Mr. Pohndorff accompanied a large holder of wines to his vineyard up in the mountains. After an hour's ride from Argostoli, they arrived at a building situate on the highroad, where the owner took from the framework over the door a key, which served for gaining ingress through that door into the building, which was stocked with a considerable number of pipes full of wine, to examine which was the object of the journey. The building stands at the edge of the vineyard, which are lined by the highroad. No other building was visible, and there seemed to be no accommodation for any one for residence in the same. Upon asking if there was no overseer or any one to look after the safety of the wine in that spot, where there were no buildings near, and consequently there might be danger from people who had to pass by the house on the high road, Mr. Pohndorff was informed, that the owner who resides in the town of Argostoli had no one on the spot to protect his property. And the further question, if the receptacle of the key was the habitual one, the answer was yes, that there was its place. Do people who pass by know that your key is not with you in town, but where you took it from? People know it; it is the custom on the island. Will they not rob you, seeing no one to protect the wines and other things kept in the house? No, but if any passer-by might feel like it, he would open the door and help himself to a glass of wine. Not surreptitiously, but openly? Yes, this would be nothing strange, nor should I disapprove of it. Does it happen frequently that a stranger helps himself thus to a drink? Oh, no, people drink their wine with their meal, and should any one happen to wish to eat something he carries with him on the road and be without wine, he would naturally make himself my guest. Abuse of the privilege—get drunk—no sir, this is not the fashion among people accustomed to accompany their food with a glass of wine in Greece.

Comment is natural. If that is a sample of national sobriety, then we might wish to be like the Greeks, and certainly not like Mohammed's unlucky and deluded followers.

AUSTRALIAN AFFAIRS.

The New Zealand Loan and Mercantile Company's Sydney Agency reports that shipments of California flour had been placed at from £11 to £11 10s. The wheat market remains stagnant. The shipments of California were taken direct into consumption, and did not, therefore, have any material effect upon the market. It is expected that exports from New Zealand must shortly cease, and that that Colony will require to import for her own requirements. Shipments of Oregon timber continue to arrive and prices must further decline to induce sales. Splendid rains have fallen throughout the Colony and the pastoralists are in high spirits. The brick-makers and coal-miners are on strike, and the local steamship owners are trying to reduce the rate of wages of their hands. Business continues to be restricted within the narrowest limits and speculation is quite at a standstill.

REFORMING PROHIBITIONISTS.

There is a grim humor in reading how prohibition correspondents extol Mohammedan proscription of alcoholic drinks, Leslie's Illustrated Paper repeats with acclamation the impressions received by a Beyrout visitor from Moslem teetotalism. The poor man looked at the surface only in Mohammedan life.

Following the rules of their prophet, which American prohibition declares to be placed above those of our Redeemer, Mohammedans will have their stimulants, and they abuse them as freely as drunkards in Christian countries do the fiercest of drinks. The excess of a dozen or two of strong coffee with ceaseless quaffing of tobacco, renders the Moslem at an early age the man you meet in the majority, who has lost the energy and the will to work, to act or to think. Like the effect of excess in spiced viands, strong tea and water, which the total abstainer from fermented drinks is more guilty of than he will confess to himself, dyspepsia, nervous prostration, and incapability of working less than the moderate consumer of wine and beer, the Moslem becomes a wreck from his over-indulgence in narcotics and sweetmeats. Could the Beyrout correspondent see the shady side of Moslem life, brought about exactly by being forbidden even the moderate use of light wine—could he see the abuse of hashish and other terrible stimulants—could he count the large proportion of hypocrites who will stealthily or openly have raki distillates, which are easily accessible just as in prohibition States—he might not be so enthusiastic about the blessing of total abstinence even from the juice of the grape.

There is reform in Moslem countries. Champagne is a merchandize openly kept by Turkish and Egyptian grandees. The predecessor of the present Khedive had the finest of wines on his table. The Mohammedan governments of both the countries just named, encourage grape growing and wine making, for enlightenment is possible there. Is it also possible among the people who are led by retrograde adherents of the rules of the false prophet of the Orient, the Neal Dows and St. Johns? Unfortunately, political advantages are to be derived from their adherents. But the ridiculousness of the principles will, we hope, not for long, infringe upon the common sense of Americans.

The people of the northern slopes of the Alps, Tyrolean and Styrians, are noted for their jolly humor and the sensible way in which they enjoy life. This does not imply that they are not devout Christians and loyal adherents of the form of government and the ruling house. A funny little verse of the Styrian poet Rosegger, written with the verve of his countrymen, just paints the affable nature of these. The idea of that verse, which is in the rhythm of the national simple songs, to be finished in one of the mountaineers long stretched trillers, is this:

"Adam invented love.
Noah made wine fashionable.
David played the first, the Zytzer.
Truly they must have been Styrians."

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

VITICULTURAL NOTES.

The following notes have been prepared by the Chief Executive Officer of the State Viticultural Commission, for the purpose of stating briefly some of the most important lessons learned during the vintage of 1885, and also to serve as suggestions for more complete observations throughout the State during the present season. Much of the work begun last year was necessarily incomplete, and many of the observations made were confused by the rapidity with which work was conducted owing to the unfavorable season.

PROBLEMS IN FERMENTATION.

ARRESTED FERMENTATIONS.—The vine growers are sufficiently familiar with the fact, that, during the process of fermentation of grape juice the sugar becomes converted into alcohol and carbonic acid gas; the alcohol as it is formed serving gradually to arrest the activity of the vinous germs, so that when the must has fermented sufficiently to contain 14 or 15 per cent of alcohol the fermentation generally ceases, notwithstanding there is more sugar and other fermentative matter still unconverted. This fact is explained generally by saying that the vinous germs will not remain active in a liquor containing an excess of alcohol, and the practice of fortifying sweet wines to prevent further disturbance is based upon this principle. There have been cases very frequently noticed in the State where, from the beginning, great difficulty has been experienced in securing active fermentation, and the arrest in the action of the germs is quite common in certain seasons, and in certain places, when much less than 14 or 15 per cent. of alcohol has been produced, the wines in such cases remaining sweetish, and in danger of development of disease, provoking bad conditions in the wine during the following spring, and otherwise demoralizing the wine-makers' work and patience. Properly speaking, we mean by arrested fermentations those which come under this head. The problem has been to understand why they have occurred, and what remedies may be provided to prevent them, or to restore fermentation. Several important principles appear to have been established, and have been corroborated more or less by the experiments of the Commission during the last vintage.

1st.—The healthful action and development of the vinous germ is unfavorably affected by a deficiency in acid, especially tannic acid, and tartaric acid, or the acid tartrate of potash, which is formed naturally in grape juice; and vice versa when those deficiencies are known to exist, healthful fermentation is promoted by adding to the must, in limited proportions, these substances.

2nd.—Lactic fermentation is promoted by deficiency in acid, and especially tannic acid, and is retarded by the addition of acid, and practically cured, or prevented, by the use of tannic acid, ordinarily known as tannin.

3rd.—Acetic fermentation is easily provoked by the addition of water to wine, together with free access of the atmosphere. Tannic acid is especially hostile to the development of the acetic germ.

4th.—It follows, therefore, that the natural conditions, which favor healthful vinous fermentation are unfavorable to the development of lactic and acetic acids.

5th.—Musts which are most difficult in fermentation, where no remedies are ap-

plied, and most disposed to become arrested as described, are generally those which have been subject, before the grapes are gathered, to intense, dry heat, and in which the acid principles are deficient. For instance grapes that contain more or less dry berries, or raisins, which are used more or less now in France in fermentation, are very difficult to operate upon in the ordinary method of wine making. The addition of tannic acid, cream of tartar, and tartaric acid, all of which are natural constituents of the grape, seems to promote healthful fermentation in wine making where raisins are used, and to prevent more or less of that cloudiness which often lingers in wine made from over-ripe or dry grapes. Formerly it was a general custom in dry, hot countries, and is still more or less practiced, to add sulphate of lime (gypsum) to the must during fermentation, the object of which was to secure bright wines without loss of color when they were finished. The use of tannin, and especially of what is known as Eno Tannin, produced from the grapes themselves, is rapidly supplanting the use of gypsum, as it accomplishes all the benefits heretofore known to result from the use of gypsum, and even more, without introducing into the wine an objectionable substance. During the present vintage, if there should be occasion to fear difficult fermentations owing to excessive heat, over ripe fruit, dry berries, or conditions of the must which are locally known to be generally unfavorable to easy fermentation, wine-makers would do well to experiment promptly by using the substances named to assist and perfect their fermentations. As to the quantity to be used in any given case all the conditions must be known, and further experimentation followed before exact rules can be given, but sufficient has been learned from the experiments of last year, to indicate that a pound of cream of tartar and two ounces of tannin properly dissolved added to a ton of grapes, or the must derived by expression therefrom, will be far within what may be considered practical limits. If tartaric acid is added, it should be only in small proportions, and it is even doubtful whether the cream of tartar does not contain enough of this principle for the purpose. Experiments made last year in the laboratory of the Commission tend to show conclusively that a much larger proportion of tannin may be used without injury to the fermentation. When this latter substance is used during fermentation, in small excess, there is little danger of communicating to the wine an excess of astringency, as the tannin combines with albuminous principles which disappear in the clearing of the wine. If added after the wine is bright and clear, only a small portion can be used, because, then, more or less of it remains in solution for some considerable time, making the wine too astringent. The tannic acid may be dissolved in hot water, but it would be better to dissolve it in alcohol, which is capable of taking up a very large proportion and making the solution perfect. In applying it to the vintage, the Chief Executive Officer advises experimenting this year to determine the proper time and method of doing the same, and suggests that if the quantity that is to be used is divided into half, one-half should be applied immediately upon crushing, and the other half as soon as the violent fermentation begins to subside—his theory with respect to this being as follows: The dangerous periods during fermentation are the beginning and end of the work; at the beginning, if the vinous fermentation is slow

in declaring itself, acetic and viscous, and even lactic fermentation may set in and introduce disorder into the wine, which will develop itself after the wine is more or less finished. The addition of the tannin at the beginning will probably tend to prevent such dangers, and by adding again at the close, when the weakened action of the vinous germ gives more or less opportunity for other germs to commence their work, the finishing of the wine may be perfected. When it is applied to the must in fermentation, it should be well stirred in. The experiments that have been made in Europe in studying the laws of fermentation, demonstrate quite conclusively that the development of the vinous germ will not take place successfully, except in a liquid containing certain proportions of potash and acid. If these principles prove to be absolutely correct, there can be no further reason for lactic fermentation in our wineries, as that disease is so easily prevented.

7th.—In clarifying wine, the practice is generally to use some albuminous substance, such as white of eggs, fish glue, etc., which in coagulating forms a film, carrying as it settles to the bottom the impurities of the wine. In clarifying red wines, there is generally inevitable loss of color. This is explained as follows: The natural tannin contained in red wines, derived from the skins and seeds of the fruit, is intimately associated with the coloring matter so that, when the coagulation of the albumen takes place, the coloring matter goes down together with the tannin and albumen, more or less. To avoid this trouble, it is customary, by those who are experienced, to add tannic acid to the wine immediately before fining, by which method the loss of the natural tannin in the wine, and consequently more or less of the color, is avoided. The principle involved in this practice may explain several things observed in connection with the use of tannin during fermentation, and also some of the peculiarities of the claret wines of this State. There is during the fermentation of our clarets a great loss of color, frequently observed during the first clearing of the wine. This is possibly caused by the union of the natural tannin with the albuminous substances which are in process of depositing, and the consequent abstraction of the coloring matter with the same. The addition of tannin, during fermentation, is declared by competent experts in France to increase the color of wine. This is probably true, and the increase of color is due to the fact that the wine clears with the aid of the added tannin, and not from the abstracting from the wine of the tannin acquired from the seeds and skins. This principle also, if proved to be true, will explain the generally observed deficiency in tannin in California clarets, as it has been noticed, but how truly has not yet been demonstrated, that in our grapes there is developed an excess of albuminous fermentative matter. That the grape skins and seeds have not been deficient in tannin is well shown by the fact that after the fermentation is concluded and the wine expressed, a great strength of tannin can be extracted from the remaining skins and seeds by the addition of alcohol. Of course some varieties of vines produce fruit yielding a larger proportion of tannin than others. This is apparent to any one who takes the trouble to chew the skins and seeds before they are fermented. The theory upon which this statement is based, is partly corroborated by the well-known

fact, that grapes which are not over ripe lose less color in clearing than those which are over-ripe and are subject to difficult fermentations. The addition of tannin, cream of tartar, etc., as has been suggested, is rarely to be commended when the grape-juice contains less than 20 to 22 per cent. of sugar, in which condition the must usually ferments easily, and brightens itself without difficulty after it settles.

8th.—In most cases where arrested fermentations were observed during the last vintage, careful investigation demonstrated that the wine-maker was more or less deceived at the start with respect to the saccharine strength of his grape-juice. It is the practice to crush a few bunches of grapes and test the strength, before picking, in order to ascertain whether the grapes are sufficiently ripe, or what the average strength of the wine may be. In some cases the must was tested last year after it was put in the tanks and found to contain a certain degree, say 24 per cent. The following day it was frequently noticed that the sugar had apparently increased, as for instance the must scale showing 28 per cent. This was the cause of a great deal of wonderment and surprise. The truth, however, no doubt, consisted in the fact that a large number of berries were more or less dry and did not the first day, or at the first test, show the amount of sugar which subsequently went into the solution of the must. The dry berries also, more or less, absorbed water from the juice surrounding them, thereby indirectly increasing the sugar contents. In some of such cases the arrested fermentations were not at all unusual, as the full average of ordinary strength that can be obtained by fermentation was accomplished. If such accidents should occur again, and during the fermentation the amount of sugar then contained in the must, should be in excess of what is known to ferment out perfectly, either fresh grapes containing less sugar should be crushed upon the fermenting mass, or water should be added to reduce the saccharine to the degree required if dry wines are required. The scale for testing the sugar in musts ordinarily used in this State, and most easy to understand, is that known as Balling's. It is simple because, for instance, if it shows on the scale 24 degrees, it means that approximately there are 24 degrees of sugar in the liquid, which, when converted by fermentation, produce about 12 per cent. of alcohol, sometimes a trifle more and sometimes a little less, according to the perfection of the fermentation.

9th.—Although not absolutely established as a principle, the experiences in different localities of different operators last year, indicate that where the must is high in sugar or over 23 or 24 per cent., the berries ferment out better when they are the least crushed; in fact, mere stemming appears to be in such cases sufficient, and the fermentation proceeds more regularly and completes itself better than when the pulp and skins are torn to shreds. In such cases, however, it is well to cover the tanks over with canvass, or with hermetically sealed wooden covers with an escape pipe the end of which is immersed in water to discharge the carbonic acid gas, before the fermentation is completed, leaving it so covered to protect the top against acetic fermentation until the wine is quite cold and runs off more or less clear, so as to completely ferment out all the berries that may accidentally not receive full action of the ferment at first, and prior to covering the vat,

as soon as the violent fermentation acts in, the whole mass should be thoroughly stirred at least twice a day.

10th.—In cases where a high degree of sugar is found, great care should be taken to see that the fermenting masses are quite shallow. This is also true in cases where the heat surrounding the fermenting vats is very high.

11th.—The practice of blending wines of different grapes which cannot be fermented together, provided they are suitable for each other, if conducted during the December racking, or in other words the first racking after the wines are drawn off, will very much promote the completion of the insensible fermentation which takes place during the winter. It is a prime object for the wine-maker to aim to accomplish, to be able to show good wines in sound condition, not fermenting during the spring following the fermentation. The mixture of wines soon after they are drawn off, even of the same kind of grape, promotes that action which perfects them, and prevents, more or less spring fermentation. This is especially important where the wines remain a trifle sweetish after they are drawn off. By mixing the wines together, new action is set up, and perfect results are generally obtained, pumping them violently from tank to tank until they are completed. Where it is intended to blend the wines of two or more varieties of grapes together eventually, it is best to ferment them together in the proportions desired as nearly as possible, if their degree of maturity will permit, or if not ripening at the same time than blending as described, as soon as possible is the proper thing to do.

12th.—Experience in this State tends to show that in making white wines, perfect fermentation is promoted by allowing the juice to remain with the skins and seeds from 12 to 24 hours after the grapes are crushed. Then the juice should be drawn off and expressed from the pomace and allowed to stand in an open vat until the scum of ferment germs develops fully on the top of the liquor, and the coarse and fibrous matter and excess of solid material settles to the bottom. As soon as the gas bubbles caused by fermentation commence to rise, but before the bottom sediment is thrown into motion, the juice then in fermenting condition should be again drawn off into pipes and allowed to finish in that condition. If it is impracticable in some cases, for want of vats, to settle the juice intended for white wine in this way, it would be well, as soon as the same conditions as noted are reached in the pipes, to pump the fermenting juice over and so separate it from the sediment. This appears to be a much better method than that practiced in the Saunterne country in France, generally, where the pipes are kept full by repeated addition of must from one to the other, so as to force, during the violent fermentation, this sediment matter to boil out of the bung-hole.

13th.—Fermentations are some times slow in starting, the difficulty being caused in some cases by cold weather at the time the grapes are crushed, or by excessive heat and dry weather before picking, or by some cause at present unexplained. In such cases it is very important that the fermentation should be started promptly by the addition of a small quantity of must in active fermentation, assisted by the addition if practicable of the true yeast germs. These latter germs can best and most conveniently be obtained in the form of compressed yeast

constantly for sale in cities and towns, but care should be taken to see that such yeast is fresh and that the development of it in the yeast tub is sound, which can be insured by the addition to it of a little tannin. By throwing in to the bottom of the vat before filling, and upon the top after filling of a comparatively small quantity of this fermenting liquid, even in very cold weather, such as sometimes occurs during the vintage, active fermentation can be secured. This addition of yeast may be practiced with advantage as a precaution in all cases of wine-making in order to insure the prompt start of the work, although often of little use where such fermentations start readily.

14th.—Where arrested fermentation is encountered, which is always indicated by a sudden fall in the temperature of the fermenting mass, and by signs easily learned by the wine-maker, the experience of last year tends to show that the best method of facilitating the completion of the fermentation, with the addition of fresh must is, in first drawing off the wine that has been arrested and expressing the pomace without delay, before adding the fresh must. If fresh must is added to the tank, without separating the juice from the pomace, the quantity to be added should be not less than one-fifth of the volume which has refused to ferment well, and to permit this being done it becomes generally necessary to draw off a portion of the tanks into others in order to give space for the addition of sufficient fresh must. It would be in such a case most desirable to test the efficiency of the addition of tannin and cream of tartar, at the time of adding this fresh must, in order to insure perfect, sound fermentation and to prevent lactic and acetic fermentation.

STUDIES ON DISTILLATION.

1st.—The distillation of pomace, after expressing wine, causes the brandies resulting therefrom to acquire a peculiar, disagreeable taste, which apparently comes from essential oils extracted during fermentation from the skins and seeds. This trouble is partly obviated by washing the pomace with water and distilling the wash-water, without putting the pomace into the boiler. Red wines are being fermented on the skins and seeds, necessarily contain more or less of the same objectionable principles as are found in the pomace, and when distilled are found to contain the objectionable flavors, more or less, of pomace brandy. Where grapes are crushed and fermented with the intention of making brandy from the wine, the juice should be expressed from the skins before fermentation, and fermented as white wine. The skins can, with the addition of water, be also fermented, but the brandy obtained from them should be considered pomace brandy, and kept separate from the finer article produced from the white wine.

2nd.—Fine brandies, which develop fragrant ether with age, appear to be produced only from certain varieties of grapes, and more especially from such as contain a large percentage of acid and agreeable aromatic properties. It is known that the acids of wine act chemically upon the essential oils and alcohol, and produce ethers, which are called bouquet in the wine. In distillation more or less of the water, aromatic and acid properties of the wine are carried over together with the alcohol.

3rd.—To improve the qualities of brandies made from Mission grapes, the producers should bear in mind the foregoing principles which they can apply as fol-

lows: Ferment the wine as white wine without the skins and seeds, and keep the pomace wine entirely separate, and to improve the quality add, either during or after fermentation, but before distillation, certain proportions of a light acid must, or wine, such as those which can be obtained from the Burger, the Folle Blanche, or a second crop Zinfandel, together with small proportions of fine aromatic juice such as the Riesling, the Colombar, or even the Muscatelle. In the case of Muscatelle, however, the proportion used should be very small in order to prevent too high a degree of aromatic taste in the brandy.

4th.—As great care should be taken in fermenting wine that is intended for distillation as is taken when wine is intended for other purposes. To insure sound, healthy fermentation the wine-maker would do well to observe the effect that may be produced by the use of tannin and other material heretofore referred to, especially in the case of fermenting Mission must. The careful brandy-maker will avoid, if possible, all traces of acetic acid in the wine which he intends to distill, and in case he uses such wines, accidentally spoiled, the brandy resulting therefrom should be kept separate from his other brandies.

SWEET WINES.

In fortifying sweet wines, to check fermentation and to prevent further action of the ferment, the wine-maker should be careful to get the required strength in his wine as promptly as possible; and to accomplish this as soon as he can after treating his wine, he should distill a small quantity to ascertain whether he has the desired result. If not, he should then immediately refortify up to the degree necessary. Negligence in this respect frequently causes the loss of large quantities of what would otherwise have been good sweet wines. When after fortification in too small a degree a re-fermentation and disturbance takes place in the wine, it is often practically impossible to make good wine of it. Some sweet wines remain sound with less fortification than others, but generally for port wines a strength of from 20 to 22 per cent. is required. Some samples of sweet wines made from the Trousseau, which seems endowed with wonderful fermentative properties, begin to spoil even two years after they have been made for want of sufficient fortification.

STUDIES IN SHERRIES.

The studies in connection with experiments in producing sherries according to the natural process, which consists in subjecting perfectly fermented dry wines to the action of the atmosphere, after the same manner that is followed when vinegar is ordinarily expected, are progressing with much promise of valuable results. In the experimental cellar of the Commission in this City, and in several stations established in the country, wines so treated are in several cases showing decided sherry properties. This branch of study, however, is yet too new for the declaration of absolute principles and will be reported upon later. White wines made from the Trousseau grape show remarkable adaptation to this treatment, resisting acetic fermentation in the greatest degree, in all cases that have been tested where the grapes originally were sufficiently ripe, and the wine perfectly fermented out. The tendency of this grape, however, is to produce a wine after this method resembling a Madeira, which is similar in general character to sherry. Generally it has been found of advantage

as soon as the wine is subjected to this treatment, to add about two per cent. of spirit and about one ounce of tannin, well dissolved, to each hundred gallons of wine.

TANNIC WINES.

The method of preparing tannic wines, and the purposes of the same were fully explained last year. It consists simply in taking a portion of the pomace after drawing the wine off and separating fragments of stems, and packing the same in a pipe or vat with the addition of alcohol. The alcohol extracts tannin rapidly from this pomace, and may subsequently be drawn off, and fresh alcohol, or wine may be added to wash out the remainder. It was found by experiment of the Commission last year that one quart of this tannic wine added to a barrel of new wine promoted clarification and brightening, giving good, keeping qualities, as well as insuring sound action during the recurrence of warm weather in the spring. By selecting the right varieties of grapes from which the pomace is obtained desirable tones of color and flavor may also be imparted in this way. Care should be taken not to use any pomace that is known to impart disagreeable flavor. Tannic wines made from Crabb's Black Burgundy appear to give desirable qualities to Port wines, and can be obtained this season readily by all who have foresight when making Port wine from Mission grapes, which are deficient, generally, in tannin, color and flavor. If such pomace cannot be obtained in the immediate vicinity of the wine-maker, it can be easily ordered and produced to demand by those who are fermenting the kind of grapes required. Several parties in this State have experimented in this way successfully. Already the custom has been introduced by Mr. Kohler in his winery at Los Angeles, where he is using the pomace of certain white grapes in order to obtain a tannic wine to treat sherries with. Mr. Crabb of Oakville, found this method of great advantage last year to his port wine, and Mr. West of Stockton, and Mr. DeTurk of Santa Rosa, equally so with clarets.

RAISINS.

The use of the Saccharometer in determining the necessary sweetness to produce a good raisin, must come into vogue if we are to accomplish uniform and valuable results. How much sugar there should be in the juice of a muscat grape, at the time it is picked, in order to make a good raisin, has not yet been satisfactorily determined, but this much ought to be apparent after a little reflection: in drying the raisins the juice becomes condensed, the watery part evaporates and a syrup of natural grape sugar remains. The less sugar there is in the juice the drier the raisin will appear to be when it is thoroughly cured owing to the absence of such sugar, and the more likely it is to spoil when it encounters moist atmospheres, as it is known that condensed grape juice containing a very large percentage, say 60 to 70 or 80 per cent. of sugar will not ferment. All good raisins may therefore properly be called sugar cured, although they depend solely upon the natural sugar of their own juice. That peculiar juiciness that is looked for in a good raisin, cannot be obtained from grapes which are deficient in sugar, because in order to dry them sufficiently to make them keep well there is not sufficient left of liquid matter to make them palatable. Frequent illustrations have occurred to show the importance of allowing the muscat grape to become suffi-

ciently ripe before it is picked for drying. In many cases producers have observed that where they have picked their grapes two weeks earlier than their neighbors, their raisins have been thoroughly cured the soonest. It may therefore be laid down as a principle, that only a thoroughly ripe grape with a sufficiency of sugar can be used to make a good raisin, and also, inferentially, that only those raisins produced from such grapes will keep well when subject to climatic changes. The use of an artificial drier to cure raisins which are deficient in sugar, will never overcome all the difficulties which have been experienced by raisin curers, although they may convert grapes, otherwise unsuited to raisin making, into a merchantable product to be sold promptly, and with care not to subject them to moist climates. Such raisins however, are fit only for cooking purposes and not for dessert.

STUDIES WITH ELECTRICITY.

Arrangements have just been made with Dr. Fraser to conduct under the auspices of the Commission, in this city, a series of experiments with a view to determining possible results from the application of electricity and magnetism in wine-making, and maturing operations. Among the several problems that have been put down for possible solution, is the effect of the magnetic current on fermentation. As soon as definite results are obtained reports will be given to the public.

A HALF YEAR'S WINE TRADE.

We give to day the total exports of California wines, by rail and by sea, for the first six months of this year. The figures are very important and show the great increase in the wine trade of this State. The output for the first half of the year amounted to 3,227,354 gallons. The output for the same period last year was 2,151,936 gallons, giving an increase of 1,045,358 gallons in 1886. The most remarkable fact, however, in connection with this increasing business is that the exports for the first half of this year were almost as much as those during the whole of the year 1884 when the total amounted to 3,501,774 gallons. The exports by Panama steamers have decreased by 80,000 gallons during the half year, and the other sea shipments have more than doubled in quantity since a year ago, the Hawaiian Islands taking the greater proportion of the increase. The overland shipments have increased to the extent of nearly 1,100,000 gallons within a year.

The talk of present over-production in the face of these figures is very absurd. In 1884 we had a vintage of 15,000,000 gallons; in 1885 only half that quantity. The present vintage will only equal that of 1884 while the consumption has doubled. The shortage of wine at the end of 1887 will be the same as at the end of the present year. Stocks are now exceedingly low and before the new year the cellars throughout the State will be almost empty. The stock on hand at the beginning of this year was about 3,500,000 gallons, which, with last vintage made a total supply of 11,000,000 gallons for the year. The demand for the year, as estimated in the MERCHANT November, 1885, was: Export trade, 4,500,000 gallons; home consumption, 5,000,000 gallons; for brandy, 1,500,000 gallons; total, eleven million gallons. The exports will be 500,000 gallons more than we anticipated, consequently

the stock on hand at the close of 1885 will be exceedingly limited in quantity, if there be any at all. The demand and consumption during 1887 should increase also. In fact, the business is now being pushed to an extent that was never yet realized, and a very large increased consumption is taking place in California. This is due partly to the establishment of cheap wine shops, and the fact that hotel and restaurant keepers are aroused to the necessity of treating wine drinkers as fairly as tea or coffee consumers. The wine-makers of California need not anticipate any difficulty about over-production at present, and we look for good prices being obtained for this year's vintage. Cellars are almost empty; the demand is increasing and the vintage this year gives every promise of being of a superior quality.

The exports for the first six months of 1885 and 1886 were as follows:

BY RAIL—JUNE 1886.		
From—	Gallons.	Value.
San Francisco	170,810	26,698
Los Angeles	26,698	1,937
Sacramento	1,937	1,937
San Jose	1,937	726
Stockton	726	
First five months 1886	202,108	
Half year	2,464,917	

BY SEA—JUNE 1886.		
Panama steamers	Gallons.	Value.
Miscellaneous routes	84,477	\$34,543
	7,853	6,822
	92,330	\$41,365

HALF YEAR'S SHIPMENTS.			
By rail.	Panama.	Other.	Total.
1886 2,666,125	475,103	86,126	3,227,354
1885 1,884,869	554,894	42,233	2,481,996
Increase for half year of 1886 (gallons) ..			1,045,358

THE AUSTRALIAN WINE ASSOCIATION OF VICTORIA.

To the Secretary of the Board of State Viticultural Commissioners, San Francisco.

Sir:—By direction of the Executive Council of the Australian Wine Association of Victoria, and on behalf of its subscribers, I have to thank your Board and self for the great courtesy shown to us in the expeditions, and very generous way in which you answered our numerous questions, and forwarded to the Association the very large supply of valuable works replete with information. The Association regard the inception of this correspondence as likely to lead to very friendly relations, and at the same time mutually advantageous. Your Board will certainly be placed on our mail list, which we hope before another year has gone by, will comprise more extensive matter than the *Vigneron*. You have been forwarded 6 of our copies by outgoing mail. I may mention here that we shall quote very freely from the information conveyed in your elaborate reports, thereby giving information of a most necessary kind to our vignerons. The Council have determined to make a big effort to obtain the appointment of a Viticultural Board on similar lines to those laid down in California, and I feel sure that the effort will meet with as great a success as your Board have effected in so short a time as five years. I am about to propose to our Council that a case of 1 dozen Standard Victorian wines should be made up and forwarded to your Board, and shall ask you to return the compli-

ment, I think by so doing we shall both be gainers as we are both young communities, and as far as wine is concerned, virtually emerging from our babyhood and therefore have much to learn.

I was much struck with the clear and concise manner Mr. Wetmore gave his evidence regarding the efforts he was making to check home consumption I am fighting equally as hard, and have commenced operations in the colonies camp in the Temperance or Teetotal Association. You see we have here enormous coffee Palaces in which thousands of people live, and thousands lunch every day and drink coffee and strong tea, also chemical compounds such as zedone, etc., the idea was to get our pure colonial wine into these places as a drink, but so far, I have met with no success. They say it is not wine or beer they object to, but alcohol—in fact any drink that is caused by fermentation. I maintained that all large wine drinking countries were essentially temperate, and that tea was certainly as injurious and in large quantities more so than pure wine. I shall keep up the fight, and should be glad to hear if you have in anyway been successful. Trusting you will have a good vintage, I am, yours faithfully,

ROBERT WALPOLE.

Honorable Secretary.

Melbourne, August 11th, 1886.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

EAST BOUND THROUGH FREIGHT.

Forwarded by the Southern Pacific Co., August, 1886.

FORWARDED FROM	SAN FRANCISCO.	OAKLAND.	LOS ANGELES.	COLTON.	SACRAMENTO.	SAN JOSE.	STOCKTON.	MARYSVILLE.
Bags and Bagging.....	112,300							
Bamboo, Rattan and Reed.....	27,720							
Barley.....	1,575,780	4,695,320				2,205,360		
Beans.....	577,420							
Blankets and Cal's Woolen Goods.....	91,800				280	10,316		
Borax.....	182,420	23,200	64,750					
Brandy.....	30,220	3,280	42,490		340	1,730		
Canned Goods.....	2,375,040	1,006,290	74,750		412,570	785,080		
China Merchandise.....	101,600							
Chocolate.....	21,280							
Cigars.....	33,110							
Clothing, California Manufactured.....	50,250							
Copper Cement.....	21,750							
Drugs.....	10,970				1,820			
Dry Goods.....	12,710							
Empty Packages.....	42,300		89,360					
Fish, Pickled.....	25,330							
Flour.....	71,110		20,260	59,750		28,800	64,160	18,000
Fruit, Dried.....			13,920		4,280	84,850		
Fuse.....	6,340	5,260				194,740		
Glue.....	69,230	26,670			2,750			
Hides.....	156,020		59,030		80,610			
Honey.....	132,830	3,420	105,260			140		
Hops.....	46,220					36,950		
Leather.....	91,230					10,260	12,230	180
Lumber.....	132,620				33,400			
Machinery.....	23,480							
Mattings.....	132,550							
Merchandise, Asiatic, in bond.....	39,780							
Miscellaneous.....	327,530	64,910	27,780		20,220	68,160	6,120	2,430
Mustard Cake.....	21,500							
Mustard Seed.....	77,600	21,750				194,460		
Oil, Fish.....	85,720							
Onions.....	309,160		87,450		21,500			
Potatoes.....	42,730				66,600			22,100
Quicksilver.....	450					89,550		
Raisins.....			2,200		2,930			
Rice.....	85,500							
Salmon, Canned.....	11,930				126,040			
Shingles.....	2,280		40,000		3,550	24,990		
Sheep, 736 Head.....								
Silk.....	394,780	21,200			31,350			
Silk Goods.....	206,750							
Silk Goods.....	22,250							
Skins and Furs, Assorted.....	21,370							
Skins and Fur Seal.....	1,094,210							
Skis and Hair Seal.....	68,520							
Sugar.....	10,426,300							
Tea.....	1,579,810							
Tea Dust.....	44,840							
Vegetables.....	447,270	19,030			99,660			
Whalebone.....	32,890							
Wine.....	2,627,380	790	167,890		129,800	37,100		
Wool, Grease.....	835,820		89,820		229,420	13,460		
" Pulled.....	36,410				92,170			
" Scoured.....	114,520							
	25,130,950	4,877,760	931,100	59,750	5,720,850	4,050,960	71,910	72,530

Recapitulation.

San Francisco.	Oakland.	Los Angeles.	Sacramento.	San Jose.	Stockton.	Marysville.	Colton.	Grand Total.
25,130,950	4,877,760	931,100	5,720,850	4,050,960	71,910	72,530	59,750	40,915,810

Native wines.

[National Tribune, Washington, D. C.]

The California Viticultural Society, which, translated into the vernacular, means the gentlemen engaged in growing grapes and making wine on the Pacific slope, have been making an earnest effort to introduce their wines into Washington. To that end they have opened a depot, at which the best quality of these goods, and which are known to be strictly pure, can be obtained at less prices than are now paid for inferior and adulterated European wines. They seem about to make a success of it, and it is to be hoped they will, for it is a constant reproach to our boasted industrial enterprise that, with the finest grape-growing country that the sun shines upon, we are still dependent upon Europe for nine-tenths of the wine that our people drink. This is economically outrageous. At a time when we cannot find a market for the immense quantities of wheat, corn and hogs that our people are producing, we are paying the same countries that are shutting out these products of ours, millions of dollars a year, for wines which should be produced by the men who are now engaged in raising a surplus of grain and meat.

Nothing in our industrial history is so incomprehensible as our neglect of the grape. Ever since the beginning of time the vine has gone hand in hand with the wheat plant and the sheep as one of the main sources of a people's wealth. We have done little when we should have done everything. Vineyards ought to be plentier in the South than tobacco patches. One-thousandth of the energy that those people have devoted to politics and to stirring up rebellion would have made the grape crop of the South worth more than the cotton crop is, and everybody would have been the gainer.

The California gentlemen are doing a good missionary work in this direction. By demonstrating, as they do, that an American wine is better as well as cheaper than the imported they are pioneering a most excellent cause.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

CALIFORNIA Concentrated GRAPE MUSTS

FOR THE SEASON OF 1886 I WILL CONCENTRATE MUST OF GRAPES FROM THE CELEBRATED NATOMA VINEYARD.

THOS. D. CONE,

Manufacturer of California Concentrated Grape Musts

OFFICE 640 CLAY ST., (Upstairs),

San Francisco, Cal.

Works at Homestead, near Sacramento, Cal.

L. LANDSBERGER & SONS, HENRY M. LANDSBERGER

**Landsberger & Son,
Commission
Merchants,
123 CALIFORNIA STREET,
SAN FRANCISCO.**

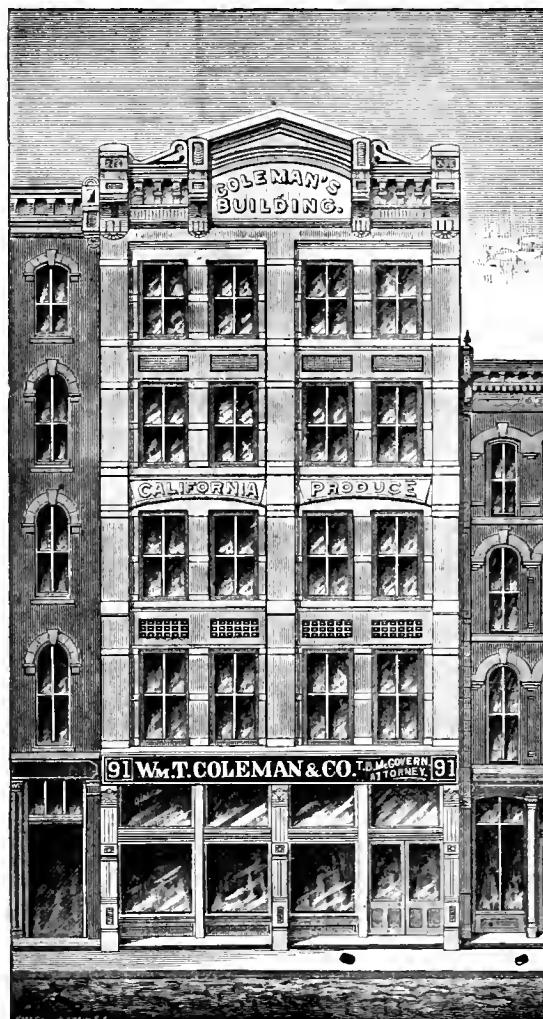
Agents for the Purchase and Sale of Viticultural Products and Vintners Supplies

AGENCY OF

WM. T. COLEMAN & CO.

91 MICHIGAN AVENUE, CHICAGO.

California Products a Specialty.



California
Canned
Fruits.

California
Dried
Fruits.

California
Raisins,

California
Wines,

California
Oranges

COLUMBIA AND SACRAMENTO RIVER SALMON,

—AND ALL—

Pacific Coast Products Suited to Eastern Trade.

CONSIGNMENTS SOLICITED, AND ALL CORRESPONDENCE
PROMPTLY ATTENDED TO.

T. B. McGOVERN, Manager.

GRAPES WHICH ARE FINE, BUT HARD TO GROW.

[Geo. W. Campbell, Delaware, Ohio, in the American Horticulturist.]

This question apparently assumes that fine grapes are harder or more difficult to grow than those which are inferior. All admit that the fine grapes are the most desirable, and the practical inquiry is, why are they more difficult to grow, and how can those difficulties be overcome? The principal reasons why the finer varieties of grapes are harder to grow, are want of hardiness in severe winters and a disposition to mildew of the foliage in summer. Some of the finer varieties have but one of these difficulties to contend with, others have both. In localities where mildew does not prevail to an injurious extent, lack of hardiness in winter is so easily guarded against, as to be practically of little consequence, in comparison with the advantage of having fine grapes. Pruning the vines in autumn as soon as practicable after the falling of the leaves, and laying the canes upon the ground, affords ample protection to quite tender varieties where there is regular snow-fall and the vines are covered with snow during the coldest weather. In localities where cold is extreme and without snow, it is necessary to cover with a little earth, and this I have found sufficient protection for the finer hybrid and tender varieties. It is generally true that the finest quality in grapes is accompanied with a more delicate constitution, and sometimes, but not always, with slender growth. Many of Rogers' Hybrid grapes, which are fine in quality, are very strong and vigorous in growth; not specially inclined to mildew, and though not hardy under extraordinary cold, will endure a temperature a little below zero without much injury. I think they will all bear as much cold, uninjured, as our cultivated peach trees. Among the best and most popular of the Rogers' Hybrids, I will name No. 3, or Massasoit, as the earliest, and one of the best Wilder, Lindley, Barry, Herbert, Salem and Agawan, are all, when grown under favorable circumstances, finer in quality than the somewhat harder sorts: Hartford, Champion, Telegraph, Worden or Concord. By giving a little winter protection, all the above named hybrid varieties can be grown with nearly as much certainty as the Concord and its numerous family of seedlings. The Delaware grape, which is still among the finest, only fails where the foliage is injured by mildew. In favored locations, where the temperature is equable and the leaves remain healthy, the wood

ripens perfectly, and the Delaware endures the severest winters without protection and without injury. It is also singularly exempt from rot, generally escaping from this malady where others are destroyed. Two varieties may also be named which are really fine, and which only require winter protection to be grown as easily, and in most places as certainly as the Concord. These are Brighton and Jefferson. I have grown these varieties since their first introduction, and with me they are vigorous in growth, healthy in foliage, very productive, bearing large and handsome clusters, which rank among the best in quality. Wherever there is a market that appreciates and will pay for fine grapes, I believe it will be found much more profitable to grow those fine varieties, with the little additional trouble and expense of giving winter protection.

The other difficulty, which renders some of the vine varieties harder to grow—the mildew—is not so easily overcome. But I have found that sulphur and quicklime in equal parts, blown upon the foliage of the Delaware early in the season, upon the very first indications of mildew, has always arrested and prevented its spreading to any serious extent, and vines so treated have ripened their wood and fruit well, even in unfavorable seasons. Another difficulty with the Delaware may be mentioned—its tendency to overbear. It will often set double the grapes it can bring to maturity, and unless they are promptly thinned out, the present crop will be lost, and the vine enfeebled for years to come. A few other fine varieties among the hybrids of more recent introduction may be mentioned, which are partially tender in winter and also subject to mildew in unfavorable seasons, and to grow these successfully, not only winter protection, but remedies for mildew of the foliage would have to be applied. Among these are Croton, Duchess, Senasqua, and the Prentiss would probably come under the same class.

Recent experiments in the vineyards of France render it probable that an effectual remedy for the mildews which affect the foliage of the grape, has been discovered in the use of lime, combined with the sulphates of copper and of iron; and if these applications should prove as efficacious in this country as they are claimed to have been in France, the greatest difficulty in growing fine varieties of grapes will have been removed.

The mixture, which has proved so satisfactory in foreign vineyards, is as follows: Dissolve 17 lbs sulphate of copper (blue vitriol of commerce) in 22 gallons of water. Mix also 34 lbs. of stone lime in 7 gallons

of water. Pour the two mixtures together and stir thoroughly. The French vineyardists sprinkle the foliage once, early in the season, using small whisk-brooms, not covering the leaves, but striving to have each leaf touched with the mixture. One application was found sufficient, if made before the appearance of the mildew, and rows in the same vineyards so treated remained healthy, while the same varieties in alternate rows not treated were so badly mildewed as to lose their foliage and entirely failed to ripen their fruit.

Another remedy, called Pondichard's Mixture, is used in powder and dusted upon the leaves by means of an ordinary sulphur bellows, or any other sprinkling device. This should also be applied early in the season, before the mildew has progressed to any extent, for all such applications are *preventives*, and not *cures*. The mixture is made as follows: 225 lbs. quicklime, 45 lbs. sulphate of copper, 20 lbs. flour sulphur, 30 lbs. wood ashes, unleached. Dissolve the copper in 15 gallons of water; pour this solution upon the lime, surrounded by the ashes to keep the liquor from spreading. Twenty-four hours afterward add the sulphur, and mix all thoroughly. When dry sift through a coarse sieve. The preparation may be made some months before wanted, and should be applied as above directed, when the foliage is not wet with dew, or after a rain.

These remedies will doubtless be thoroughly tested the present season, in this country, and there is reason to believe that they, or some modification of them, will be found of the greatest value when the grape mildews are prevalent.

Bank Management.

BANKS may always be known by the commercial reputation of the men who manage them. We have had so many instances, in this city, of bank failures occurring from lack of care in this respect, that it behooves business men to consider the matter seriously. Where such men as Dr. R. H. McDonald, its President, and his coadjutors of the Pacific Bank, are at the helm, the public knows that its interests will be cautiously guarded.

DRAIN TILE.



BOX

BRANDS
A
SPECIALTY.

BRUSHES

— AND —
All Kinds of

INKS

FOR SALE.

2nd Country Orders Promptly Filled

CALIFORNIA VINEYARDS.

KRUG CHARLES.
Krug, Station, St. Helena, Napa Co., Cal.
Producer of the Wines and Brandy.

J. C. WEINELANDER. Manufacturer of Wines, near St. Helena.

H. W. CRABBE. Wine Cellar and Distillery, Oakville, Napa County.

SAN FRANCISCO WINERY. ROEPP & REID.
Business Proprietors, 117 1/2 Eighth St., S. F., Cal.

PAUL O. BURG WINE CO.

Proprietors

YERBA BUENA VINEYARD.

Distillery of Grape Brandy

Fine old Mountain, Burgundy, Zinfandel, Riesling, Gutedel, etc., in cases or bulk.

Branch Cellars in San Jose, Cal., U. S. A. P. O. San Jose, Cal.

W. H. TAYLOR & CO., SAN FRANCISCO, Sole Agents for the above and New York.

ESTABLISHED IN 1860.

ALL WINE MAKERS

Should drink the

PURE BELMONT

HAND-MADE -

SOUR MASH WHISKY.

Supplied in lots to suit by

JAMES CIBB, 617 Merchant St.

HERRMANN & CO.,

HOP MERCHANTS.

Importers and Dealers in

CORKS, BREWERS' AND BOTTLE'S SUPPLIES,
SODA WATER AND WINE DEALERS' MATERIALS

ALEX. FRIES' & BROS. COGNAC OILS,
ESSENCES AND FLAVORS.

313 SACRAMENTO ST. San Francisco.

THE RISDON

IRON AND LOCOMOTIVE WORKS.

Cor. Beale & Howard Sts., S. F.

W. H. TAYLOR, Pres't. JOSEPH MOORE, Sup't

BUILDERS OF STEAM MACHINERY

IN ALL ITS BRANCHES.

Steamboat, Steamship, Land Engines
and BOILERS, High Pressure or Compound.

STEAM VESSELS of all kinds built complete, with
Hulls of Wood, Iron or Composite
STEAM BOILERS. Particular attention given to the
quality of the material and workmanship, and none
but first class work produced.

SUGAR MILLS and SUGAR-MAKING MACHINERY
made after the most approved plans. Also, all
Boiler Iron Work connected therewith
PUMPS (Direct Acting Pumps, for irrigation or City
Water Works purposes built with the celebrated
Pony Valve Motion, superior to any other Pump



Graham Paper Co.

OF ST. LOUIS

W. G. Richardson

PACIFIC COAST MANAGER,

No. 529 Commercial St.,

SAN FRANCISCO, - - - CALIFORNIA

TELEPHONE No. 1061.

OUR NATIVE WINE SHIPMENTS BY SEA.

PER P. M. S. CO'S STEAMER SAN JOSE, AUGUST 31, 1886.

TO NEW YORK.

MARKS	SHIPPERS	PACKAGES AND CONTENTS	GALLONS	VALUE
S & T, New York	J. Andrus & Co.	50 barrels Wine	2,181	\$600
I T R, New York	"	25 barrels Wine	1,216	500
S Bros, New York	"	25 barrels Wine	1,184	500
H, in diamond, New York	Lachman & Jacob	5 puncheons Wine	807	303
Total amount of Wine			5,688	\$2,203

TO CENTRAL AMERICA.

A V, Acapulco	Urruela & Urioste	3 barrels Wine	45	\$34
J C, Acapulco	"	3 barrels Wine	30	25
"	"	2 barrels Whiskey	20	60
S & S, Champerico	Schwartz Bros	10 cases Wine	50	45
Total amount of Wine			125	\$104
Total amount of Whiskey			20	60

TO MEXICO.

A H, Acapulco	J O Meyerink	1 barrel Wine	47	\$50
A H & Co, Acapulco	Urruela & Urioste	16 packages Wine	100	47
A V, Acapulco	"	10 cases Whiskey	50	88
E H T, Mazatlan	Williams, Dimond & Co	1 case Whiskey	12	12
Total amount of Wine			147	\$97
Total amount of Brandy, 1 case			1	88
Total amount of Whiskey, 10 cases			62	12

MISCELLANEOUS SHIPMENTS.

DESTINATION	VESSEL	RIG	GALLONS	VALUE
Honolulu	W G Irwin	Brig	577	\$987
Japan	San Pablo	Steamer	583	360
Victoria	Mexico	Steamer	621	193
Hilo	Hazard	Brig	100	55
Honolulu	Mariposa	Steamer	1,775	1,593
Total			3,656	\$2,888
Total shipments by Panama steamers			5,960 gallons	\$2,404
Total shipments by other sea routes			3,656 "	2,888
Grand totals			9,616	\$ 5,292

J. N. KNOWLES, MANAGER

EDWIN L. GRIFFITH, SECRETARY

ARCTIC OIL WORKS.

MANUFACTURERS OF

Sperm Whale, Elephant and Fish Oils, Skid Grease,

WHALE OIL SOAP.

ESPECIALLY ADAPTED FOR VINEYARDS AND FRUIT ORCHARDS.

OFFICE—28 CALIFORNIA STREET, S. F., Cal.

W. T. Y. SCHENCK,

Sole Agent, Pacific Coast,

"Eureka," "Paragon," "Red Cross" & "Mill"

Brands of

COTTON RUBBER LINED FIRE AND GARDEN HOSE.

Also RUBBER HOSE of Extra Fine Quality. Hose Carts, H. & L. Trucks, Fire Engines and Fire Dept. Supplies generally. Manufacturer of the Celebrated Square Flax Packing, the Best in the world for all Hydraulic purposes.

No 256 Market St., San Francisco.

Williams, Dimond & Co.

SHIPPING

COMMISSION MERCHANTS.

UNION BLOCK,

CORNER FINE AND MARKET STS., SAN FRANCISCO, CAL.

Agents for Pacific Mail & Steamship Co., Pacific Steam Navigation Co., The Al Mail Steam Ship Company, The Hawaiian Line of Packets from New York, the Hawaiian Line of Packets.

The China Traders Insurance Company (limited)

THE WINE PRESS AND THE CELLAR,

By E. H. Rixford.

A MANUAL FOR THE WINE MAKER AND THE CELLAR MAN

PRICE, \$1.50.

For sale by

THE SAN FRANCISCO MERCHANT.

PROHIBITION PRODUCES PRIEST PRIGS AND PROMOTES PREDIGIOUS PREVARICATIONS.

[Bonfort's Wine and Spirit Circular]

One of the arguments used by the Prohibition Party in support of their theory that it is right and proper to destroy the business of those citizens who are engaged in the manufacture and sale of intoxicating beverages is that prohibition diminishes intemperance. We have frequently shown that this is not true. We have proved that the consumption goes on just the same, and that the sumptuary law only teaches the citizen the sneaking hypocrisy and meddling habits that are notoriously characteristic of those communities in which such laws have been long in force. To show how right we were we reprint a letter to *The Mail and Express*, of this city, an ardent advocate of the Prohibitionists. If there had been any chance of controverting the facts stated in the letter, it would have been done. In fact, we think its appearance in *The Mail and Express* at all is one of those unaccountable accidents that sometimes occur in newspaper offices. But it did appear on the 15th inst., in a paper that had half a dozen arguments for prohibition in other columns. After reading it, it is difficult to see how any honest man with common sense can be a Prohibitionist. Perhaps he can't.

PORTLAND, ME., Aug. 12th.—"Rum is smuggled into Bar Harbor this year in coffins," was a statement recently made. It may or may not be literally true, but it is no exaggeration of the underhanded methods of transporting contraband liquors in this State. And it should be explained for those unfamiliar with the Yankee vernacular, that "rum" is the generic name for everything, from extra dry to beer, prohibited by the Maine law. Of this coffin story it may be further remarked that the total abstinence, people here are so zealous and earnest in their antagonism to all who drink, that they would gladly see every person who sells liquor or uses it as a beverage carried out of the State in a wooden overcoat. Despite this feeling, and an outwardly rigid enforcement of the law, I do not think there is a city or village in Maine where one cannot obtain all he wishes to drink—if he only knows how. The druggists are barkeepers for the convenience of those they know or believe to be all right. Sometimes they make mistakes, and expensive ones. For example, a lady—in appearance—applied to an apothecary at Old Orchard for two ounces of brandy. She said she was going to Boston by boat, was always troubled with seasickness on the ocean, and needed the liquor for strictly medicinal use. Although a stranger, the apothecary accommodated her. This little act of kindness cost him just \$843.50. She was a female spotter, and had him promptly arrested. He sells no more brandy to ladylike customers who want it as an antidote for *mal de mer*. Scores of similar cases could be quoted.

At all the Summer resorts on the coast or inland, one can get his cocktail or beer or wine at the better class of hotels, either served in his room or in some room devoted to the purpose which is changed from day to day. When a hotel keeps a movable bar, the location of which is only disclosed to trustworthy patrons, the supply of wines and liquors visible is always meagre, the bulk being carefully concealed elsewhere. Then, in cases of a sudden search and seizure the loss is usually trifling.

Last year the liquor smelling officers seized at one time \$1000 worth belonging to the Old Orchard House; through some technicality they were obliged to return it to the owners, but this is unusual.

As a rule it is emptied into some contiguous body of water. Twenty seven thousand gallons of seized liquors were emptied into Portland's Back Cove only a few days ago. In connection with this official spilling it is said that infrequently the casks, barrels and demijohns are emptied of their original contents by the honest officers through whose hands they pass for the benefit of the officers and their friends, and then it is only colored water, or some other make believe "rum" that is so ostentatiously poured out as an oblation to Neal Dow.

According to the eternal fitness of things—as understood here—the Portland City Liquor Agency is next door to a fire engine company. At many of these agencies any one can obtain anything he wants and at reasonable prices, with no questions asked beyond the name of the purchaser, which is entered in a book along with the name and quantity of liquor purchased.

In fact, many of these agencies are nothing more or less than barrooms protected by law, with the single disadvantage that the patrons must carry away their "rum" to drink elsewhere. Some of the larger agencies keep in stock everything that a first-class bar or wine room in New York would have, including champagnes, clarets, white wine, bottled beer, imported liquors and "hard stuff" in variety.

In places like Portland, Lewiston and other large towns, despite the activity of the police, a good many back room, down cellar and upstairs barrooms are run on the sly. It is in these low grogeries that the worst quality of stuff is sold; for it is notorious that the manufacturers make a special brand of "forty rod" for this and other "temperance" States.

Bangor is the only city in Maine which defies the law by running open bars and saloons, and plenty of them. It is said, and history seems to back up the assertion, that they could not elect a sheriff in Penobscot county who would enforce the law or make a pretense of doing so.

The natural result is that Bangor is commercially prosperous and correspondingly popular with the traveling public. Portland hotel men tell me that whereas Sunday should be their best day, in reality it is their worst. Druggists and tourists en route make it a point to get out of Portland Saturday night, going either to Bangor or Boston to secure satisfactory spirituous inspiration on Sunday.

It was Bangor's anti-prohibition proclivities which originated the story, many years ago, which has since been adapted and applied to other localities. A man on the train asks:

"Is there any gentleman from Bangor in this car?"

"I'm from Bangor."

"Will you kindly loan me your cork-screw?"

Just now there is a good deal of talk about the Third Party—meaning the followers of Neal Dow, who is at present amusing himself and the Democrats by making faces at the Republican party, which he is no longer able to bulldoze at his own sweet will.

As one evidence of his power, I am told that at the last election in Biddeford, a lively manufacturing town, the third party

polled exactly twelve votes—three of these being cast by men so drunk that it was necessary to help them to the polls. If this is true, this trio evidently had internal evidences of the necessity of prohibition, so far as they were concerned. More likely it is a campaign lie.

At any rate, Neal Dow is working with great vigor to smash the Republican party, and there is much difference of opinion as to what results he will show at the State election this Fall.

Speaking of Neal Dow, one of the oldest, ablest and an entirely conscientious supporter of the strictest prohibition legislation, said to me:

"Neal Dow is in his dotage. He doesn't know how big a fool he is making of himself. Two Winters ago he came to Augusta with a bill covering a long list of amendments to the present law, making it more cast iron than ever. Some of these amendments were unconstitutional and others were simply ridiculous. No legislature in the world would have passed his bill, and if it could have been made a law it could never have been enforced. The Republicans saw how weak and silly his desired legislation was and refused to make asses of themselves by attempting to pass it; now he is trying to ruin because he couldn't rule. I'm for prohibition, heart and soul, but I have too high an opinion of the Republicans of Maine to believe that any number of them will back him up in his present movement."

The papers recently published an item to the effect that Gov. Wetmore, of the newly fledged prohibition Rhode Island, has the finest stock of wines in the State. To match this, I am told by a personal friend of Gov. Robie, of Maine, that it was since he became chief executive of this dyed-in-the-wool prohibition State that he has learned to appreciate the liquid pleasures of life.

THE LOMA PRIETA LUMBER CO. SUCCESSORS TO WATSONVILLE M. & L. Co.

HAVE ON HAND A FULL SUPPLY OF THE following size

GRAPE STAKES,

2X2-4 FEET LONG.
2X2-5 FEET LONG.
2X2-6 FEET LONG.

Which will be sold at reasonable rates.

Address all communications to
LOMA PRIETA LUMBER CO.,
WATSONVILLE,
Santa Cruz County, Cal.

A MEMOIR ON OLIVE GROWING

WITH ILLUSTRATIONS.
Read Before the State Horticultural Society, February 29, 1884, by

FRED. POHNDORFF.

Will be mailed by the S. F. MERCHANT on receipt of 50 cents in one or two-cent postage stamps.

JAMES HUNTER
GAUGER OF WINES AND SPIRITS.
(Established 1851.)
OFFICE—323 FRONT STREET,
San Francisco.



ARE YOU USING
WELLINGTON'S
IMPROVED EGG FOOD
For Poultry?
IF NOT, WHY NOT?
EVERY GROCER, DRUGGIST AND MERCHANT
SELLS THIS EGG FOOD.

HARD TIMES MADE EASY.
Are you using Wellington's Improved Egg Food for Poultry? If not, why not?

EXCELSIOR HOT WATER INCUBATOR.
No lamp. No oil. No expense to run. No watching. Best in the world.

ECC TESTER. Testing six at a time. Quicker and better than one by any other process.

Seeds of Every Variety.
B. F. WELLINGTON,
425 WASHINGTON ST., San Francisco, Cal.

BOSTON BELTING CO.
GOOD HOSE A SPECIALTY.

J. W. CIRVIN & CO.,
24 CALIFORNIA STREET, S. F.

FRAZER AXLE GREASE
BEST IN THE WORLD
Its wearing qualities are unsurpassed, actually outlasting two boxes of any other brand. Free from Animal Oils. GET THE GENUINE.
FOR SALE BY
CALIFORNIA MERCHANTS
and Dealers generally.



A. 1876 S. I. XII.
I. S. 1888 G.
The Indestructible never Sink.

CROSSE & GARDNER,
BROKERS IN REAL ESTATE.
Ranches, Residence, Business and Manufacturing Property Bought and Sold on Commission. And Publishers of "Sonoma County Land Register and Santa Rosa Business Directory."
OFFICE, No. 312 B ST., SANTA ROSA, CAL.

E. L. G. STEELE & CO.,
Successors to
C. ADOLPHE LOW & CO.,
COMMISSION MERCHANTS.
Agents American Sugar Refinery and Washington Salmon Cannery.

ANGLO-NEVADA Assurance Corporation

—OF—
SAN FRANCISCO, CAL.
FIRE and MARINE.

Subscribed Capital \$2,000,000.
OFFICE: 410 PINE ST.

DIRECTORS:
LOUIS SLOSS, J. W. MACKAY,
J. B. HAGGIN, W. F. WHITTIER,
J. ROSENFELD, E. E. EYKE,
J. L. FLOOD, E. L. GRIFFITH,
G. L. BRANDER, J. GREENBAUM,
W. H. DIMOND.

This Corporation is now prepared to receive applications for Fire and Marine Insurance.

G. L. BRANDER, President
J. L. FLOOD, Vice-President
C. P. FARNFIELD, Secretary
J. S. ANGUS, Assistant Manager

Bankers, The Nevada Bank of San Francisco

E. C. HUGHES PRINTER
511 Sansome St., S. F.

THE WINE & FRUIT GROWER.
B. F. CLAYTON,
EDITOR AND PUBLISHER.
24 PARK PLACE, NEW YORK.

SUBSCRIPTION TERMS:
(Payable in advance.)

ONE YEAR (Free of Postage) \$1 00
SIX MONTHS 50
SINGLE COPIES 10
EUROPEAN COUNTRIES 1 50

Subscriptions and advertisements received at the office of the "Mer. chant."

CHOICE OLD WHISKIES
PURE AND UNADULTERATED.

We Offer for sale on Favorable Terms to the Trade,

CATHERWOOD'S
Celebrated Fine Old Whiskies,

OF THE FOLLOWING BRANDS, NAMELY.
"CRANSTON CABINET"
"A.A.A." "CENTURY"
"OLD STOCK"
"HENRY FULL"
"DOUBLE B"
"MONOCRAM"
VERY OLD AND CHOICE, IN CASES OF ONE DOZEN QUART BOTTLES EACH.
"BRUNSWICK CLUB" Pure Old Rye, And "UPPER TEN."

For Excellence, Purity and Evenness of Quality the above are unsurpassed by any Whiskies imported. The only objection ever made to them by the manipulating dealer being that they cannot be improved upon.

Dickson, De Wolf & Co.
SOLE AGENTS,
SAN FRANCISCO, CAL.

Challenge Wine Pump.
WITH BRASS LINED CYLINDER, OR ALL BRASS PUMP.



The annexed cut represents our Horizontal Challenge Wine Pump of great compactness and power, for use in vine cellars for pumping from one tank into another. The Cylinders of our iron pumps are brass lined, the piston rod, valves and valve seats are brass. Our all-brass pumps are made entirely of brass with exception of the lever. Very Suitable as a power wine pump.

Wine Tanks. WATER TANKS.

We manufacture our tanks of two inch First quality Redwood Lumber, well seasoned, free from knots, with a hoop to every foot in height and guarantee them to be well made in every respect. Write for special prices. NO. 111 E. Send for our special Catalogue of Wind Mills, Pumps of all description, Wine Hose, Garden Hose, Wine Cocks, etc. Mailed free upon application.

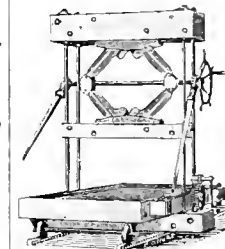
WOODIN & LITTLE,
509 and 511 Market Street, San Francisco.

GOODYEAR'S
"GOLD SEAL"
Rubber Hose.
For Sale by All Dealers.



GOODYEAR RUBBER CO.
R. H. PLANT, J. S. M. HUNTER, AGENTS
577 and 579 Market St., SAN FRANCISCO

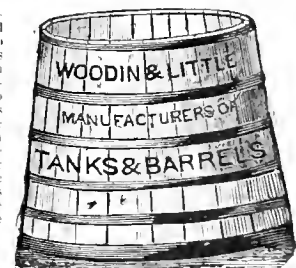
WORTH'S IMPROVED
PATENT
COMBINED TOGGLE LEVER
—AND—
SCREW PRESS.



I desire to call the attention of wine and Cider makers to my Improved Press. With this Press the movement of the follower is fast at the commencement, moving one and a half inches with one turn of the screw. The last turn of the screw moves the follower one-sixteenth of an inch. The follower has an up and down movement of 2 1/2 inches, with the double platform run on a railroad track. You can have two curbs, by which you can fill one while the other is under the press, thereby doing double the amount of work of any other press in the market. Model on exhibition at the office of the Board of State Agricultural Commissioners. I also manufacture Horse Powers for all purposes, Ensilage Cutters, Plow Tilters, Worth's System of Heating Dairies by hot water circulation. 25¢ Send for circular.

W. H. WORTH,
Petaluma Foundry and Machine Works,
Petaluma, Sonoma Co., Cal.

Testimonials from I. DeTurk, Santa Rosa; J. B. J. Portal, San Jose; Ely T. Sheppard, Glen Ellen; Kate F. Warfield, Glen Ellen; J. H. Drummond, Glen Ellen; Joseph Walker, Windsor; John Hinkelman, Fulton; Win. Pfeffer, Galsburgville; J. & F. Muller, Windsor; R. C. Stiller, Galsburgville; Lay Clark & Co., Santa Rosa; Vackey Freres, Old San Bernardino; F. Crank, William Allen, San Gabriel; James Finlayson, R. & J. J. Gobbi, Healdsburg; W. Metzger, Walter Phillips, Santa Rosa; J. Lawrence Watson, Glen Ellen; Geo. West, Stockton; can be had by applying for printed circulars.



The Phylloxera.

(Orchard and Home.)

This minute insect, a kind of plant louse or aphid, is a native American, and its different forms belong to two types. One is the leaf-gall type, the members of which attack the foliage, tendrils and tender branches and go to the roots where they hibernates. The damage done by this type is but trifling compared with the other type, which inhabits and lives on the roots of some of the grape species. This root-louse phylloxera spreads rapidly from one susceptible vine to another and from vineyard to vineyard, and whole vineyards in France and Germany have been entirely ruined in recent years.

Fortunately there is no need of American growers getting scared about the phylloxera, as most of our native grapes are phylloxera proof. We quote the following from "Injurious Insects of the Farm and Garden" (Mary Treat):

"The slow-growing, more tender-rooted and consequently more tender-rooted varieties succumb most readily, the more vigorous growers resist the best. The European vine (*Vitis vinifera*) in its many varieties, is little affected by the leaf inhabiting type, but it succumbs in a few years to the root lice. Varieties of the Northern fox grape (*V. Labrusca*) vary much; some, like Concord and others, resist well, while others, like Catawba suffer severely. Varieties derived from *V. aestivalis* and *V. cordifolia* are nearly exempt from the root form, but some of them have leaves much at-

tacked by the gall type. The Southern fox grape (*V. vulpina*) is entirely free from phylloxera in any form."

Thus far the only practicable methods of combating the insect when established upon the root, is by drowning it by irrigating the soil. In Europe the method largely adopted is to graft their vines upon varieties, the roots of which are phylloxera proof; for this purpose American varieties have been sent to Europe in immense numbers as cuttings and as root-d plants.

The French Vintage

Bouffort's Wine and Spirit Circular gives the following reports from various wine-districts in Europe: In the Gironde the prospects are that the vintage will not exceed in quantity that of 1885. In quality it is hoped that there will be an improvement. Some sales of red wine of 1885 go to show that this view is shared by the trade of Bordeaux.

In the white wine districts the prospects seem about the same as on the lower river.

They expect to commence the vintage in the Médoc about the 20th of September.

Advices from Champagne state that the weather during the first week in August, although somewhat better than the last fortnight in July, was still not as warm as could have been desired. The nights were cold. Much damage was done by a hailstorm on the 11th. Some small sales have been made in Epernay amounting in all to some 50 pieces. The prices are no better.

What is considered of much more importance in Champagne than this insignificant dealing in '85 is the increase in the indications of mildew. The vines are looking bad, and much fear is felt of a recurrence of the disease that was noted in the Spring. The growers were praying for a warm August and a pleasant September in order to get rid of the cryptogams, and to give them a normal ripening. It seems to be settled that the vintage cannot take place in September, and but an ordinary quality is looked for.

In the South of France the prospects for the vintage are exceedingly good. The weather leaves nothing to be desired, and if it continues as good as it was during the first week of the month the gathering will begin in about a week.

Reports from Germany say that the outlook for the vintage is generally not very good; the weather in the early part of the month was changeable and unsatisfactory. We note quite a number of sales in all the wine districts, none of which are of any particular importance except as indicating an increasing lack of faith in the coming vintage.

In Hungary the prospects for the vintage are good in all of the vineyards that were spared by the May frosts. The district that has suffered most is the Hegyalja, whence come the finest wines; it is estimated that the loss here will equal three-quarters of the crop. The phylloxera is reported to be increasing in Hungary.

In the Charantes the cold and damp weather of the early part of the month gave rise to much apprehension in regard to cryptogamic diseases, which had not, however, actually made their appearance.

R.H. McDonald, PRESIDENT.
R.H. McDonald Jr., VICE-PRES.
S.G. Murphy, CASHIER.

PACIFIC BANK
 Oldest Chartered
 Commercial Bank
 on the Pacific Coast.
 Capital \$1,000,000.00.
 Surplus \$500,000.00.

San Francisco, Cal.
July 1st, 1886.

We respectfully invite attention to the statement herewith presented, and beg to say we are pleased with our achievements during the first half of the present year.

It is gratifying to us, also, to state that the results attained are satisfactory to our stockholders. We hope our success will receive the favorable regard of our patrons and friends whose business relations have conducted to enable us to make so commendable an exhibit as the following:

ASSETS:	
Bank Premises,	\$150,000 00
Other Real Estate,	35,556 27
Land Association, Gas and	
Bank Stocks,	31,364 65
Loans and Discounts,	2,374,843 15
Due from Banks,	339,502 11
Money on Hand,	451,805 78
* \$3,416,551 96	

LIABILITIES:	
Capital paid up,	\$1,000,000 00
Surplus Fund,	500,000 00
Undivided Profits,	23,318 71
Due Depositors,	1,741,973 33
Due Banks,	151,259 90
3,416,551 96	

While returning thanks to our friends for the very liberal patronage during the past, a continuance of their favors is respectfully requested. The regular semi-annual dividend has been declared and a balance of accumulation placed to account of undivided profits.

R. H. McDONALD, President.

SULPHUR! SULPHUR! SULPHUR!

FOR SALE IN

QUANTITIES TO SUIT.

WM. CLUFF & CO..

WHOLESALE GROCERS,

16, 18, 20 and 22 Front St., Cor. Pine, S. F.

JOHN A. ROEBLING'S SONS CO.
WIRE ROPE
 GALVANIZED SHIP RIGGING, MINING, TILLER,
 ELEVATOR, TINNED & COPPER ROPE, SASH CORDS.
 LARGEST WIRE ROPE WORKS IN THE WORLD.
IRON & STEEL WIRE OF EVERY KIND.
 TELEGRAPH WIRE, HARD & SOFT COPPER WIRE
 INSULATED FOR ELECTRIC USE.
 WIRES OF IRON & COPPER, FENCE WIRE,
 SWEDISH IRON WIRE, CRUCIBLE STEEL WIRE.
 TRENTON, N. J. & 14 DRUMM ST. SAN FRANCISCO, CAL.

THE AMERICAN SUGAR REFINERY COMPANY,

MANUFACTURERS OF THE

CELEBRATED CUBE SUGAR,

Supplies Only Exporters and the Jobbing Trade.

This Company manufactures all the Grades of HARD and COFFEE SUGARS and SYRUPS. Special attention given to the making and Packing of Loaf Sugar for Export.

208 CALIFORNIA STREET.

SAN FRANCISCO, CAL.

E. L. G. STEELE,
President.

Dr. MINTIE

THE SPECIALIST,

No. 11 KEARNY ST., San Francisco.

Treats all Chronic, Special and Private Diseases with Wonderful Success.

THE GREAT ENGLISH REMEDY



Is a never-failing cure for NERVOUS DEBILITY, EXHAUSTED VITALITY, SEMINAL WEAKNESS, NEURALGIA, LOSS OF MANHOOD, PROSTATITIS, IMPOTENCY, Paralysis and all the terrible effects of self abuse, youthful follies and excesses in mature years, such as loss of Memory, Lassitude, Nocturnal Emissions, Aversions to Society, Dimness of Vision, Noises in the Head, excess in drinking intoxicating liquors, the vital fluid passing unobserved in the urine, and other diseases that lead to insanity and death.

Dr. Mintie Will Is a Regular Physician Graduate of the University of Pennsylvania, who will agree to forfeit \$500 for a case of this kind the Vital Restorative, (under his special advice and treatment) will not cure, or for anything impure or injurious found in it. Dr. Mintie treats all PRIVATE DISEASES SUCCESSFULLY WITHOUT MERCURY. Consultation Free. Thorough examination and advice, including analysis of urine, \$3. Price of Vital Restorative, \$1.50 a bottle or four times the quantity, \$5; sent to any address upon receipt of price, or C. O. D., secure from observation, and in private name if desired, by Dr. A. E. Mintie, 11 Kearny street, San Francisco, Cal.

Send for pamphlet and list of questions.

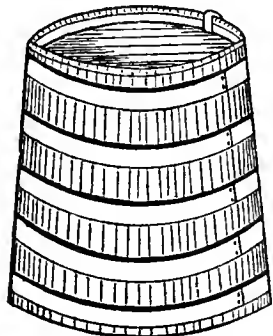
SAMPLE BOTTLE FREE.

Will be sent to any one applying by letter stating symptoms, sex and age. Strict Secrecy in regard to all business transactions.

DR. MINTIE'S KIDNEY REMEDY NEPHRETICUM, cures all kinds of Kidney and Bladder Complaints, Gonorrhea, Gleet, Lemorrhua, etc. For sale by all Druggists; \$1 a bottle, 6 bottles for \$5.

DR. MINTIE'S DANDELION PILLS are the best and cheapest DYSPEPSIA and BILIOUS cure in the market. For sale by all Druggists

REDWOOD TANKS

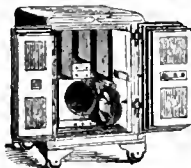


F. KORBEL & BROS.

727 BRYANT ST., S. F.,

Or at NORTH FORK MILL, Humboldt Co., Cal.

FIRE-PROOF SAFES ALL SIZES.



CHAS. WALTZ, inventor and Manufacturer of the Waltz Safe, Fire and Burglar Proof Safes, Time Locks, Bank and Vault Work, a Specialty. Expert work done in opening and repairing Safes and Locks. Beard's Patent Screw Door Burglar Proof Safes and Chests. Safes

built to order.

CHAS. WALTZ,

11 Drumm Street, SAN FRANCISCO, CAL. Write for prices and information.

RUPTURE RADICALLY CURED by Dr. Pierce's Great Discovery. Thousands of patients cured at THEIR OWN HOMES. No Experiment! It does the Work! DR. PIERCE & SON, 704 Sac to St., San Francisco, Cal.

THE COOS BAY STAVE & LUMBER CO.

— MANUFACTURERS OF ALL KINDS OF —

COOPERAGE GOODS!

Especially invite the attention of Wine Men to their unsurpassed facilities for supplying packages from a

5-GALLON KEG TO A 160-GALLON PIPE OR PUNCHEDN.

Our machinery enables us to execute all orders with promptness and economy. Price last on application.

OFFICE: 323 FRONT STREET,

WORKS BRANNAN ST., NEAR EIGHTH.

CLARIFYING AND PRESERVING WINES.

The undersigned having been appointed Sole Agents on the Pacific Coast by Messrs. A. BOAKE & CO., Stratford, Eng., for their renowned

LIQUID ALBUMENS,

Reg to call the attention of Wine Growers and Wine Merchants to the following articles, the superior merit of which has been confirmed by Silver Medals, the highest awards given at the International Exhibition of Paris 1875, Bordeaux 1882, and Amsterdam 1883, viz:



LIQUID ALBUMEN FOR RED WINES,

Claret, Burgundy and Port.



LIQUID ALBUMEN FOR WHITE WINES,

Santernes, Sherry and Madeira, also for distilled liquors; Whisky, Gin, etc., etc.



WINE PRESERVER,

For Preserving the Brilliance of the wines.



WINE CORRECTOR,

For Correcting the Roughness of Young Wines.



WINE RESTORER,

For Restoring Badly Made or Badly Treated, Harsh and Tart Wines.

A trial according to directions will prove the superior qualities of these finings. For sale in quantities to suit by

CHARLES MEINECKE & CO. Sole Agents,

314 SACRAMENTO STREET, SAN FRANCISCO.

WM. T. COLEMAN & CO.,

Commission Merchants.

SAN FRANCISCO,

CHICAGO,

NEW YORK,

Agency WM. T. COLEMAN & CO.,

ASTORIA, Or.,

Agency WM. T. COLEMAN & CO.

LONDON.

With Agents and Brokers in every Commercial City of Prominence in the Union.

WE MAKE A SPECIALTY OF HANDLING THE

RAISIN CROP OF CALIFORNIA!

(And amongst others we are Agents for

Riverside Fruit Company of Riverside, Miss Mary F. Austin of Fresno, McPherson Bros. of Orange, T. C. White of Fresno.

With many other of the Most Prominent Cutters of this State.

Our Facilities for Promptly Placing and widely Distributing Their Produce Can be Ascertained from the Above well-known Cutters.

We are also Large Handlers of

ORANGES, DRIED FRUITS, HONEY AND BEANS

IN THE EASTERN STATES.

Advances Made when Required, and Full Information of Markets Promptly Given. Address

Wm. T. COLEMAN & Co.

MARKET & MAIN STS., S. F.

"LE MERVEILLEUX"

Most Powerful and Cheapest

Wine and Cider Press

YET PRODUCED.

Patented in France, England, Germany, Belgium, Italy, Norway, Sweden, Denmark and the United States.



This press (a French invention) has been used several seasons in the wine districts of France and Germany with great success, and is now introduced to the American public for the first time.

Its advantages are: Rapidity of action and almost able power. With a single effort 2 or 3 times more power can be obtained than with any other press known at this day. It has also greater capacity than any other press in the market. The Press can be seen in operation, and is for sale, at the factory of P. W. KROGH & CO., 51 Beale St., San Francisco, Cal.

PARE BROS.,

Sole Agents for United States,

Fresno, Cal.

OFFICE OF ALFRED GREENEBAUM & Co., Importers and Commission Merchants, 111 Front St. P. O. Box 1927. Depot of the Inglenook Vineyard—Napa County red and white wines.

SAN FRANCISCO, August 12, 1886.

EDITOR MERCHANT—Sir: We call your attention to the "Dessicated Egg Albumen" for the clarification and fining of all kinds of Wines, for which we are Sole Agents for the Pacific Coast.

The "Dessicated Egg Albumen" has been proven by actual experience to be the most economical and safest clarifier known to Commerce, and we refer to the leading wine dealers of this city, who will testify to its excellence. One pound of Egg "Albumen" equals 144 eggs and is the pure whites of the eggs, dessicated by a scientific process, all the salt and acid being eliminated by evaporation, and which will give a perfect clarification without affecting in the least the color of the Wine. The formula is very simple: for a puncheon of 150 gals. red or white dry wines, thoroughly dissolve 2½ to 3 ozs. of the "Albumen" in, say a gallon of tepid water or wine, then whip thoroughly into the puncheon, let rest for 6 or 8 days, then rack off. For sweet or brandied wines use from 4 to 6 ozs., same process as above. We are, yours truly,

ALFRED GREENEBAUM & Co.

NOW READY.

THE

REPORT

OF THE

FOURTH ANNUAL

STATE

VITICULTURAL

CONVENTION.

PRICE, ONE DOLLAR.

OFFICE OF THE SAN FRANCISCO MERCHANT.

E. C. HUGHES & CO.,

Publishers,

511 Sansome Street,

HONOLULU**CASTLE & COOKE,****SHIPPING AND****COMMISSION MERCHANTS**

Honolulu,

Hawaiian Islands.

—AGENTS FOR—

THE KOHALA SUGAR CO.,

THE HAIKU SUGAR CO.,

THE PAPAIOU SUGAR PLANTATION

THE WAIALUA SUGAR PLANTATION

THE PAIA PLANTATION

A. H. SMITH & CO.,

THE N. E. M. LIFE INSURANCE

CO. BOSTON,

THE UNION INSURANCE CO.

OF SAN FRANCISCO,

THE GEO. F. BLAKE MFG CO.,

STEAM AND VACUUM PUMPS,

D. M. WESTON'S CENTRIFUGAL

MACHINES.

WM. G. IRWIN & CO.

SUGAR FACTORS AND

COMMISSION AGENTS

Honolulu, H. I.

—AGENTS FOR—

HAKALAU PLANTATION.....Hawaii

NAALEHU PLANTATION.....Hawaii

HONUAPO PLANTATION.....Hawaii

HILEA PLANTATION.....Hawaii

STAR MILLS.....Hawaii

HAWAIIAN COM'L & SUGAR CO.....Maui

MAKEE PLANTATION.....Maui

WAIHEE PLANTATION.....Maui

MAKEE SUGAR CO.....Kaua

KEALIA PLANTATION.....Kaua

Agents for the

OCEANIC STEAMSHIP COMPANY.**Kohler & Frohling,****PIONEER WINE HOUSE.**

ESTABLISHED 1854

Growers of and Dealers in

CALIFORNIA**WINES & BRANDIES.**

VINEYARDS IN

LOS ANGELES COUNTY, SONOMA COUNTY,
MERCED CO. AND FRESNO CO.**628 MONTCOMERY ST.,**

San Francisco.

618 BARCLAY STREET,

New York.

A. ZELLERBACH,

IMPORTER AND DEALER IN

BOOK NEWS FLAT, WRITING
PAPER.

MANILA, WRAPPING AND STRAW PAPER,

Colored, Poster and Tissue Paper Also En-
velopes and Twine.**419 & 421 CLAY STREET.**

few doors below Sansome

San Francisco, Cal.

**THE SOUTHERN PACIFIC CO.,**Respectfully invites the attention of TOURISTS AND
PLEASURE SEEKERS to the SUPERIOR FACILIT-
IES afforded by the "Northern Division" of its line
for reaching the principal

SUMMER AND WINTER RESORTS OF CALIFORNIA

WITH SPEED, SAFETY AND COMFORT.

Pescadero, Menlo Park, Santa Clara,
San Jose, Andromeda Mineral Springs,
Gilroy Hot Springs.**-MONTEREY-**

THE QUEEN OF AMERICAN WATERING PLACES.

Camp Goodall, Aptos, Loma Prieta,
Monte Vista, New Brighton, Sequel,
Camp Capitola, and**SANTA CRUZ.****PARAISO HOT SPRINGS.****EL PASO DE ROBLES**

HOT AND COLD SULPHUR SPRINGS,

And the only Natural Mud Baths in the World.

This Road runs through one of the richest and
most fertile sections of California, and is the only line
traversing the famous Santa Clara Valley, celebrated
for its productiveness, and the picturesque and park-
like character of its scenery, as also the beautiful San
Benito, Pajaro and Salinas Valleys, the most flourishing
agricultural sections of the Pacific Coast.Along the entire route of the "Northern Division"
the tourist will meet with a succession of Extensive
Farms, Delightful Suburban Homes, Beautiful Gar-
dens, Innumerable Orchards and Vineyards, and Luxu-
riant Fields of Grain, indeed a continuous panorama
of enchanting Mountain, Valley and Coast scenery is
presented to the view**Characteristics of this Line:**GOOD ROAD-BED. STEEL RAILS. ELEGANT CARS.
LOW RATES. FAST TIME. FINE SCENERY.TICKET OFFICES—Passenger Depot, Townsend Street,
Valencia St. Station, and No. 613 Market Street,
Grand Hotel.A. C. BASSETT, H. R. JUDAH,
Superintendent, Asst. Pass. and Tkt. Agt.

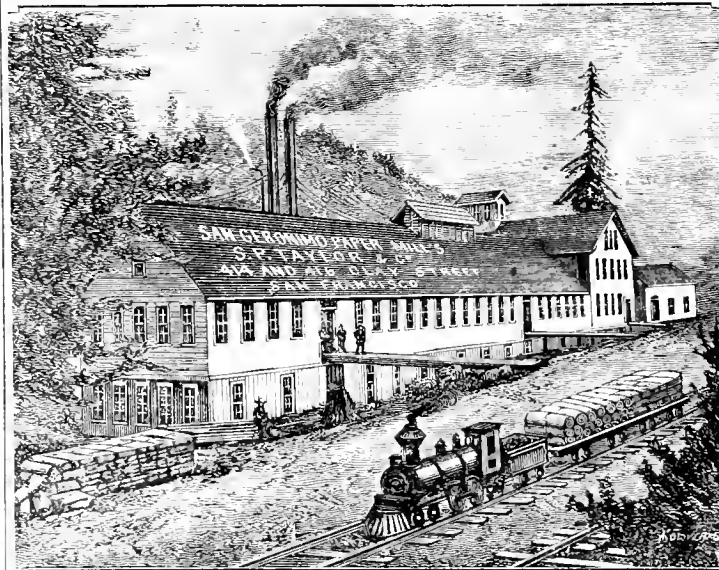
1856.

PAPER.

1886.

S. P. TAYLOR & CO.

Manufacturers of and Dealers in Paper of all kinds.



Book, News, Manila, Hardware, Straw and Tissue

PAPER.**Paper Bags, Twines, Etc., Etc.**

PRINTED WRAPPERS A SPECIALTY.

Proprietors Pioneer and San Geronimo Mills. Agents for South Coast (Straw) Mills.

414 and 416 CLAY ST., SAN FRANCISCO.**S. P. COMPANY.****QUICK TIME AND CHEAP FARES**

To Eastern and European Cities

Via the Great Trans-continental All-Rail Routes

— OF THE —

SOUTHERN PACIFIC
COMPANY.

(PACIFIC SYSTEM)

Daily Express and Emigrant Trains make prompt con-
nections with the several Railway Lines in the East.

CONNECTING AT

NEW YORK AND NEW ORLEANS

with the several Steamer Lines to

ALL EUROPEAN PORTS.**PULLMAN PALACE SLEEPING CARS**

attached to Overland Express Trains.

THIRD-CLASS SLEEPING CARS

are run daily with Overland Emigrant Trains.

No additional charge for Berths in Third-class Cars.

25% Tickets sold, Sleeping-car Berths secured, and
other information given upon application at the Com-
pany's Office, where passengers calling in person can
secure choice of routes, etc.**Railroad Lands**

FOR SALE ON REASONABLE TERMS.

Apply to, or address,

W. H. MILLS, JEROME MADDEN,
Land Agent, Land Agent,
C. P. R. R. SAN FRANCISCO, S. P. R. R. SAN FRANCISCO**A. N. TOWNE. T. H. GOODMAN.**

General Manager. Gen. Pass. & Tkt. Agt.

SAN FRANCISCO, CAL.

SHIPPING.**OCEANIC STEAMSHIP COMPANY.**

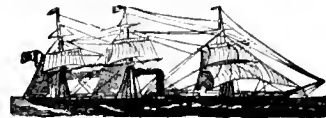
CARRYING THE UNITED STATES, HAWAIIAN

and Colonial mails for

HONOLULU,**AUCKLAND,****and SYDNEY**

WITHOUT CHANGE,

The splendid new 3,000-ton Steamship

**MARAROA**Will leave the Company's wharf, corner Steuart
and Folsom streets,**WEDNESDAY, September 25th at 2 P. M.**

Or immediately on arrival of the English mails.

For Honolulu and Return

THE STEAMER

WILMINGTON. Wednesday, Sept. 15th.**For Honolulu and Sydney Only.**

The Steamer

AUSTRALIA. Friday, October 1st

For freight or passage apply at office, 327 Market st.

JOHN D. SPECKELS & BROS.,

General Agents.

OCCIDENTAL & ORIENTAL STEAMSHIP
COMPANY.**for JAPAN and CHINA.**Steamers leave Wharf, corner First and Brannan sts.
at 2 o'clock, P. M., for**YOKOHAMA and HONGKONG.**

Connecting at Yokohama with steamers for Shanghai,

1886.

FROM SAN FRANCISCO.

GALLIC. THURSDAY, SEPT. 30th

BE GIC. TUESDAY, OCTOBER 10th

SAN PABLO. TUESDAY, NOVEMBER 9th

OCEANIC. WEDNESDAY, DEC. 1st

GALLIC. THURSDAY, DECEMBER 21st

EXCURSION TICKETS to Yokohama and return
at reduced rates.Cabin plans on exhibition and Passage Tickets for
sale at C. P. R. Company's General Offices, Room 74,
corner Fourth and Townsend streets.For freight apply to GEO. H. RICE, Freight Agent,
at the Pacific Mail Steamship Company's Wharf, or
at No. 202 Market street, Union Block.

T. H. GOODMAN, Gen. Passenger Agent.

LELAND STANFORD, President

SPRAY PUMPS.Fruit Growers, Farmers, and all desiring to purchase
a Spray Pump that is far ahead of all others in this
market, as it is the ONLY Pump made with all metal
valves, should buy the "CLIMAX SPRAY
PUMP," all complete with tube, spray nozzle,
plain nozzle, galvanized iron can, six feet of best Rub-
ber Hose; capacity, 3 gallons; all ready to use. Price,
\$15.00. Good Agents wanted at once. Send for
Circulars. 211 California St., San Fran-
cisco, Cal**ACME****FRUIT AND GRAPE GATHERER.****SUPPLIES A LONG FELT WANT.**
SAVING TIME AND MONEY.An invaluable tool for the purpose and so cheap
that they come within the reach of all. Samples
sent by mail on receipt of 60 cents.

SOLE AGENTS FOR THE PACIFIC COAST,

NOVELTY HARDWARE CO.

No. 1523 MISSION ST., SAN FRANCISCO, CAL.

Agents wanted.



IMPORTERS OF ALL KINDS OF

Printing and Wrapping Papers.

401 & 403 SANSOME ST., S. F.

THE SAN FRANCISCO MERCHANT.

THE ONLY VITICULTURAL PAPER IN THE STATE.

Devoted to Viticulture, Olive Culture, and other Productions, Manufactures and Commerce of the Pacific Coast.

VOL. XVI, NO. 12.

SAN FRANCISCO, SEPTEMBER 24, 1886.

PRICE 15 CENTS

CHEAP WINES.

CHAPTER VI.

On the acidity of wine—Diseases of wine. M. Pasteur's treatment—Deposits in bottled wine—Beeswing, crystals, parasitic growths.

By ROBERT DRUITT

Those things are called acid which reddens litmus paper, or which neutralize an alkali, or which give a certain impression to the tongue known as *sour*. Acids may be inorganic or organic. Amongst the former, the sulphuric, hydrochloric, nitric and phosphoric are articles of diet or medicine; amongst the latter, the citric from lemons, tartaric from grapes, oxalic from sorrel, the acetic a product of sugar, the malic, racemic, etc., which exist in fruits, the tannic or astringent, and the lactic in sour milk. All acids without exception are poisonous in very large doses and concentrated forms; and some are extremely noxious in very small quantities, especially those which arise in rancid fat, in the fermentation of grain, etc. These, and not vinegar, are the acids of heartburn and gout.

Acids are greedily sought for by many persons and avoided by others. The persons who seek them are usually the young, strong, active and hearty, with free open pores of the skin, and good appetites. Acids do to the palate and stomach what soap and towels do to the skin—i. e., they strip off its coating, make it redder, more active, and ready to secrete. Hence the love for lemon-juice, vinegar and pickles at dinner, and the charm of acids to persons in certain kinds of bad health, torpid liver, coated tongue, etc. The secretions of sore throats are alkaline, and an acid liquor wipes this off, and leaves the surface clean. The persons who avoid acids are usually the torpid, and those with red tongues or skins locked up. The power of taking acids, however, does not depend on the dose of acid *per se*, but on its combination. Thus a very small dose of acid, strong and naked, might be intolerable; whilst almost any quantity may be taken if properly veiled, as it were, by sugar, extractive, gelatinous or fatty matter. Acids and these gelatinous matters are complementary to each other, and each renders the other wholesomer. Nevertheless, there are some

persons who cannot tolerate any acid, whether naked or combined.

Should a man in good health be afraid of acids?—No more than he should be afraid of cold baths and brisk exercise. Some unlucky people can't take a cold bath without rheumatism, or a breath of cold air without bronchitis, or a long walk without exhaustion, or a cucumber without the colic. But are the healthy population, therefore, to avoid all that is cool and bracing? Certainly not; and so they should use that form of drink which suits an active, perspiring skin, and hearty supplies of meat. The stomach of a young girl should not be treated like an old woman's, which can digest nothing but bread and meat and alcohol. To keep the skin rosy, fresh and young, the diet must not be that which suits the faded, withered, torpid skin of age, "colore mustilino." The history of scurvy in the navy should also be borne in mind, and the number of skin eruptions and blood disorders for which the combinations of potash and vegetable acid found in wine are prescribed by the physician.

Nevertheless, wine that is too sour to be pleasant should be shunned, because it offends that divinely-ordained instinct of taste which teaches us what is good for us.

The acid in wine is first, that of the grape which remains after fermentation; second, that generated during and after fermentation, partly by oxydation from the air, *per se* and simple, partly by the presence of parasitic growths, or by the presence of decaying organic matter.

In good wine the acidity is due to tartaric, malic, and volatile acids, each wholesome *per se*. If too acid, the fault may be excess *simpliciter*, or more probably defect of body, which should veil the acid. The only test of quantity of acid is the chemical one; and this shows that very first-class wines of the Rhine and Moselle, contain most acid; port and sherry least; but it must be remembered that one-fifth or more of port and sherry is not wine, but spirit; and secondly, that the makers of sham wine can put in as little as they like, or can neutralize natural acidity by chalk or plaster; hence quantity of acid is no test of quality of wine. Nay, the tartaric and other organic acids may actually themselves decompose, and spoiled wine be less acid than the same wine sound, as in some diseases.

Hitherto we have spoken of pure dry wines. We need not trouble ourselves about the acidity of sweet wines—i. e., those containing much sugar; nor about fortified wines, which cannot be very acid because of the quantity of spirit added, and whose characteristics are enormous alcoholic strength with the sweetness of unfermented juice.

The second cause of acidity is exposure to the air, and absorption of oxygen. A third cause is the contact of decaying organic matter. This is well exemplified by No. 22, in the following table.

Any putrid taint may sour meat, milk, wine or man. Dead flies, says the book of Ecclesiastes, cause fragrant ointment to stink. A few dead flies, now, in the East, will cause any jar of honey to ferment and acetify. And the same will happen to wine. Out of three samples, Nos. 21, 22 and 23, drawn from the same cask, one was put into a bottle into which a few flies got when the cork was left out. This small quantity of decomposing organic matter converted it into vinegar, besides generating other acids (concerning which, consult Mr. Griffin.)

Excess of acid is a common fault with wine of the extreme northern limits, and in cold seasons. The grapes do not ripen; they contain absolutely too much acid and too little sugar. Therefore they cannot of themselves be rich in alcohol, and alcohol it is which most efficiently, within certain limits, covers the tastes, and neutralizes the effects of acidity. The observations on this point made by Mr. Griffin deserve the greatest attention. In good wine "the weight of the alcohol should have a certain relation to that of the acid." Of course there must be a certain quantity of each; but this being granted, the proportion must be within certain limits.

"Light wines," says Mr. Griffin, "have 150 grains of acid in a gallon, of which almost one-fourth part is volatile acid, and three-fourths are fixed acid. 2. The quantity of absolute alcohol is twenty-one times as much as that of the total acid by weight. 3.—There is no sugar. These conclusions are founded upon the opinion that the acid is the prime regulator of the tastes of wines." With an acidity of 150 grains of acid in a gallon, you can have a first-rate wine, but the acid must be covered with from 20 to 25 times—with at least 20 times its weight of alcohol. As to sugar, it is a

superfluity. The average quantity in 21 light wines was under 150 grains per gallon, while the acid had a mean weight of 117 grains, and the alcohol a mean weight of 7000 grains. The sugar residue seems to be the mark of failure in perfect fermentation. There ought, says Mr. Griffin, to be none left in the completed wine, and in many first-rate wines there is none.

The following table of the acidity of certain wines was published in my former edition, as given me by Mr. Griffin, whose general conclusions as to quantity of acid are summed up thus:

- 1.—Good wine contains a quantity of acid that is equivalent to from 300 to 450 grains of crystallized tartaric acid in a gallon.
- 2.—Wine with less than 300 grains of acid in a gallon are too flat to be drinkable with pleasure.
- 3.—Wines with more than 500 grains in a gallon are too acid to be pleasantly drinkable.
- 4.—Wines with more than 700 grains in a gallon are undrinkably sour.

The figures mean this: Voelslauer wine is as acid as a liquid containing 375 grains of tartaric acid per gallon. And so of the rest.

Of these wines, Nos. 1, 3, 5, 7, 8, 13, 16, 20, 21 and 23 are good; Nos. 5, 7 and 16 very good; and 24 first-rate. So that at any rate what suits most palates has acidity equal to 73 grains of tartaric acid per bottle.

Nos. 2 and 14 were old, spoiled bottles; the palate detected an undrinkable quality of acid; yet they are not intrinsically very sour. No. 12, a *sour* claret, yet not so acid, chemically, as No. 16. Nos. 3, 4, 5, 6 and 23 show examples of wine becoming less acid by age. Nos. 10 and 18 are fortified.

In the total acidity is included the *fixed*, which Mr. Griffin believes to be pretty constant in quantity, and the *volatile*. The volatile varies much. It is high in good wines, and consists in the fragrant complex ethers generated by the tartaric acid; and it is *very* high in wines that have much acetic acid, and other volatile noxious acids. The volatile acidity in Nos. 1, 7 and 8, good wines, was equal to 45, 75 and 85 of tartaric acid per gallon respectively. That in 3 and 4, to 128 and 110; that in No. 22, to 998 grains per gallon.

WINES.

No.		Total acidity
1.	Voeslauer, Schlumberger's	37.5
2.	Szamorodsky spoiled	130
3.	White Capri, Fearon's	450
4.	Ditto 3 months opened	140
5.	White Kefessia, Deiman's	350
6.	Ditto 3 months opened	300
7.	Omer, Max Greger's	37.5
8.	Thera, very old, fine, and soft, Deiman's	350
9.	Santorin, opened April 18, 1865, ditto	140
10.	Tarragona, sample from docks	325
11.	Fronac, open 5 months, too strong and sour at starting	500
12.	Fronac, purchased April 18, 1865	140
13.	Claret, 21st, poor and thin	340
14.	White Duai, soured	190
15.	Como, 1862, sample, Deiman's	400
16.	Good ordinary Claret	450
17.	Gezeiger Bakator	450
18.	Old Sherry, at 36c	325
19.	St. Elie	45
20.	Galley's Castle Rock, at 16c	140
21.	White Kefessia ex "Ada," March 28, 1864; sample drawn March, 1864	380
22.	Same wine drawn at same time, in bottle with <i>ad hoc</i>	1300
23.	Same wine, drawn November 4, 1864	37.5
24.	Rudesheimer, 81c	140

Wine is a liquid exceedingly greedy of oxygen. But the most effective instrument of oxydation is the growth of the *vinegar plant*, mother of vinegar or *mycoderma aceti*. And this leads me to say a few words on the parasitic vegetables found in wine, and the diseases they occasion.

M. Pasteur's theory of the nature of change of wine in time is, that it is brought about by the slow limited action of oxygen on wine in cask and bottle, which oxidizes the wine, and causes its coloring matter and tannin to become brown and insoluble, and deposit a crust. Hence the wine in time perishes and dies of old age.

New wine in vessels partially filled becomes covered with a thick mould of *flours de vin*, *mycoderma vin*, a microscopic parasitic plant, composed of little corpuscles arranged in bead-like strings, which Pasteur believes to feed on the wine, and transform its alcohol into water and carbonic acid. Far different is the *mycoderma aceti*, a similar plant, but much smaller, which converts the alcohol, by imperfect oxydation, into acetic acid.

When wine is infested with the germs of this plant, it is never safe in cask or bottle. Some districts are infested with it, whilst others are not; and it is to avoid this that the great care is needed, which is used to keep wines from the contact of the air and disturbance of their lees, when they are being racked off, or bottled.

After acescence, M. Pasteur describes a wine malady in which the wine is said to be *tourne*, *monte*, *avoir la pousse*, etc. The wine becomes flat, sour and turbid, and if moved in a glass held to the light seems as if it contained a something silky, waving to and fro. It gives off bubbles of gas, which sometimes threaten to burst the cask. This, Pasteur believes to be a special fermentation allied to the *lactic*, but producing abundance of vinegar, and due to the development in it of a number of microscopic filaments of the extremest tenuity, often less than 1-1000th part of a millimetre in diameter. It exists in the wine from the first, but assumes a rapid development during the first hot weather of the next year.

A third malady is when wines, especially white, lose their limpidity, become flat and insipid, and pour like oil. This, the *maladie de la graisse*, is owing to another parasite growing in filaments, differing in some microscopic respects from the last. The addition of tannin is a good remedy.

Yet a fourth disease—with which I am very familiar, and which has ravaged some very fine wines, especially Volnay and Assmannshausen. This is the malady of bitterness—*amerume*, *maladie de l'amar du gout de vin*. It is easily recognized thus: invite a man to a friendly dinner; begin

well with a little glass of old Madeira; next, a glass of some appetizing light wine; then, whilst he takes his slice of mutton, invite him to take a glass of Volnay or Assmannshausen, and let him be helped first. It is the critical point in the dinner; hunger beginning to be appeased, and the palate in its highest state of receptivity. You watch the guest as he sips the wine during a pause in some joyous talk. That which was satisfaction in his demeanor, should be ecstasy. But no! the thermometer of his visage sinks ten degrees; he hesitates; looks sad. Can it be that he is ill? Alas, no; you turn to the glass poured out for yourself, and there, instead of the bright, ruby, delicious mouthful, you have, as it were, a prematurely old, thin, yellowish-brown, sad liquid, with no taste of wine, no alcoholic strength, only a flat bitterness. What are you to do? First, resolve that you will never offer a guest an old red wine out of the bottle, without preliminary examination and decantation. Secondly, give him the best substitute at hand. Thirdly, descend learnedly on the disease which you may truly affirm to be particularly fatal to the grandest wines, one of which you have exhumed in his honor. Fourthly, you may improve the occasion by corking up the wine, and examining its sediment with a fine microscope after dinner. Lastly, you may console yourself by the reflection, that now you have learned why some *sherrys are bitter*. But this we must speak about presently.

With the microscope we find three things in wine sediments. First, the crystals, of cream of tartar and tartrate of lime, which may be seen by the naked eye upon the cork, if wine has been bottled rather new. Secondly, the coloring and extractive matters which ought to be deposited as beewings, lining the bottles, in thin, filmy, tenacious crusts, looking under the microscope like an organized granulated membrane. Such crusts I have seen, *par excellence*, in 1820 and 1834 port, in Santorin and in Naussa. They generally adhere to the bottle; but if shaken up, they subside directly, leaving the wine clear and bright as before. Other deposits of this material are powdery, light, easily disturbed, and slow to settle again, and make the wine sour and bitter till they are got rid of. The third portion of the wine sediment consists of the remains of parasitic growths. These, says M. Pasteur, from their tendency to mix with the wine, are the occasion of great loss when the wine is racked off or decanted. It is rare, says M. Pasteur, to find any red table wine, grand or common, entirely free from parasites in its deposit—especially the filamentous mass of the *maladie du vin tourne*.

The existence of these parasites, as we have said before, explains many of the rules which "old experience" has laid down for the preservation of wines, especially fining, freezing and filtration. Besides, there is Pasteur's practice of *heating or chantage*, which consists in exposing wine, in cask or bottle, for a longer or shorter time, to a temperature of about 45°-50° Centigrade, or 110°-130° F. This may be done in a chamber by stoves or by steam, and whether the wine be in cask or bottle, it seems to kill the parasites and give the wine softness and maturity, without alteration of color or of taste.

A practical deduction I venture to say: 1.—That the deposits which are least incompatible with a healthy state of wine, are the heaviest, go to the bottom most quickly

when disturbed, and leave the wine clear. Such are the crystals found in the best wines. 2.—Next to this in innocency is a compact crust. 3.—That a red wine with a compact crust may decay, thin and go utterly sour from age, without parasitic intervention. 4.—That spoiled wine often abounds in parasitic growths. 5.—That some wine may abound in parasitic growths, of the oval-bead shape, and be quite turbid on the least disturbance, and yet the wine filtered off may be bright, sound and exquisite. 6.—Lastly, but for all this, when a man sees grumous powdery deposit in wine, red or white, and especially of a filamentous character, he had better use the wine than let it decay.

The woodcuts show the deposits of:

1.—*Haut Sauterne*, 1851. Little saw minute bundles of crystal, of cream of tartar.

2.—*An ordinary St. Julien*, 1858. Thoroughly sour from age. A good firm beewing, studded with abundance of little molecules, which Pasteur declares not to be spores, but only petty molecules of oxydized extractive.

3.—*Old White Dry Ruste*, of Max Greger's, in my cellar since '65. When filtered a splendid Madeira-like wine. A very large deposit of the minutest light spores. Shows also a fragment of cork.

4.—*Volnay, E. Laussot*, 1858. A wine decidedly aged, attenuated, tawny, bitterish, but uncommonly good old wine on its last legs. Some firm crust, and an infinity of minutest threads proceeding from oval spores. The wine decants quite clear.

5.—*Wine from the Loire*, quite soured, but bright; some crust; crystals of tartrate of lime and abundance of spores; *maladie du vin tourne*.

6.—*Faucluse*; intensely sour and muddy; large quantity of filamentous stuff. *Maladie du vin tourne*.

7.—*Red Bukkulla*, from Wyndham, of Dalwood. A stout, admirable wine. Peculiarly shaped crystals.

8.—*Falerno*. Sour and quite decayed. A large quantity of filamentous stuff, like that described by Pasteur as the cause of the *amerume*, and of the *vin tourne*.

Wine and Bank Bitters.

The *Concord Sun* says: Dr. R. H. McDonald makes an attack on wine—a beverage sanctioned by the highest and holiest authority on earth, and whom, to-day, over five hundred millions of people believe was godlike; a beverage, which in all ages, has been in its use as common as cow's milk; a beverage, which in its present manufacture and future preparation, is involved the employment of labor and capital that would, if swept away, shake not only the foundation of all civilization, but even that of the Pacific Bank Vinegar Bitters, and in time the extinction of the McDonald race as a species of humanity. Hobbies are common humanity, but this one coming from so good a man as we believe R. H. McDonald to be, would make him pause on the threshold of destruction to one of the most favored States—if he sincerely thought he had the power—fully as much so as he would think of retiring from the management of his back, devoting his time and fortune exclusively to the formation of institutions to feed, clothe and educate the unfortunate, and teaching by his example, that the amassment of wealth, unless expended in this direction, is a curse.

Raisin Rates Reduced.

[Fresno Republican.]

An important reduction of freight rates on raisins from Fresno to the terminal point at Stockton has been made. The full particulars concerning this reduction will be found in a letter which we print below, from the general freight agent to the committee of Fresno gentlemen who recently went to San Francisco and had a consultation with Senator Stanford regarding the matter. The rates to the East as now fixed we believe are about one-half the rates charged last year, and are certainly as reasonable as can be expected for the present. The reduction is an important one to Fresno raisin growers and to all who are interested in the development of this promising industry. The following is the letter received by the committee:

To Hon. J. W. North, A. B. Butler and T. C. White—GENTLEMEN: Referring to your recent interview with the president of this company with respect to freight upon raisins, as you are informed, we could have to consult our connections and competitors in the matter of rates from "common points," such as Stockton and Los Angeles to eastern points, and this has caused the seeming delay in answering your petition.

At the time you called upon Governor Stanford, the rate from Fresno to Stockton on raisins destined East, in carload lots, was 35 cents per 100 pounds, and from Stockton to Chicago and points common with Chicago \$1.50 per 100 pounds, making through rate, Fresno to Chicago, \$1.85 per 100 pounds.

It has been decided by the company to charge for the service, from Fresno to Stockton, on your raisins destined East, \$30 per carload of not more than 20,000 pounds, or on carloads of not less than 20,000 pounds, 15 cents per 100 pounds; and to guarantee that the rate from Stockton to Chicago and common points during this season shall not be more than \$1.25 per 100 pounds, which would make the rate through from Fresno to Chicago and common points \$1.40 per 100 pounds, as against a rate of \$1.85 last year.

At present, owing to the disturbed relations between the various lines competing with each other for the traffic between California and the East, the rate from Stockton to Chicago is but 75 cents per 100 pounds, which added to the local we propose to make from Fresno, namely, 15 cents per 100 pounds, makes the through rate from Fresno to Chicago 90 cents per 100 pounds. This latter rate, however, must be regarded as temporary, for, of course, the competing lines will endeavor as soon as possible to compose their differences in order to obtain a revenue from the business that will be somewhat commensurate with the service. However, you may be assured that the through rate will not be above \$1.25 per 100 pounds, as above stated.

With regard to the local rates from Fresno to San Francisco, we believe that Fresno can reach San Francisco with such raisins as she may wish to market in that city on as favorable terms as any other prominent producing section of the state, and that there is no good reason why the market will not take all it can consume at that rate. We cannot see that it would materially benefit the producers at Fresno to reduce the rate; the reduction would be followed by a reduction in the rates from other sections of the state, and if not immediately, very soon consumers only would get the benefit. Trusting this will meet with your approval, I beg to remain yours very truly,

J. C. STUBBS

FRESNO.

Eisen's Vineyard—Irrigation System and Wonderful Effects Water-Power Utilized—Fresno Company's Vineyard—Cellars Built of "Adobes."

[By Thomas Hardy, Bankside Vineyards, Adelaide.]

The vineyards of Los Angeles being nearly 500 miles south of San Francisco, we determine to take what is called the southern route on our way to the east, taking us through Arizona and New Mexico, and then northward to Chicago, instead of the northern route via Salt Lake and Omaha. On the way we stopped a day at Fresno, which is about 200 miles on the route, and is situated in the midst of the immense plain between the Sierra Nevada and the coast ranges, both of which are seen nearly the whole way, the snow-topped peaks of the Sierra Nevada showing up occasionally through the dull vapor-laden air. Nearly the whole of this plain is in wheat and other cereals, and makes one feel small in talking of our wheat-fields in South Australia. The whole of this valley is drained by the San Joaquin River and its tributaries. The principal one crossed before reaching Fresno is the King's River, from which water is obtained for irrigating the plains about Fresno. Fresno is quite a new place, but has already 4,000 inhabitants. The streets are laid out wide and regular, and when well planted with trees it will be a very fine city.

We drove out to the vineyard of Mr. Eisen, about four miles towards the Sierra. This is the oldest vineyard in the district, having been started about eight years ago. The estate is 640 acres, 300 of which are planted with vines. The proprietor was away to San Francisco, but his superintendent, Mr. Baber, a young Englishman, showed us all we wished to see, and gave us all the information possible about irrigation, which is the life of the district, for without it it is only a sandy waste, destitute of trees or grass, and barren-looking in the extreme compared to the portions irrigated. The great feature of this estate—or "ranch," as they are all called, from the Chinaman's five acres to the squatter's 50,000—is a system of irrigation, which was here brought first into use into the district. On the estate was the bed of one of the many creeks which bring the waters of the mountains across the plain in times of flood. A company took it in hand to build a dam across the King's River, about sixteen miles up the stream, and divert a portion of the water into this channel, which by this means soon became larger and more defined in its course. Mr. Eisen has the advantage of this stream through the middle of his property, and it has so thoroughly saturated the land that water can now be obtained anywhere at a few feet, whereas before they had to sink fifty feet for it. A raised channel, or ditch as it is called, 3 feet deep, 9 feet across at the top, and three feet at the bottom, is taken from this main channel at about a mile up the stream, and brought round to the cellars nearly on a level, and is there used to turn a turbine wheel, having a fall of about 4 feet. This power is used for all purposes, such as pumping wine, crushing grapes, grinding corn, pressing cotton, sawing wood, etc. From this channel are smaller ones, following generally the highest ground all over the estate, and the water is turned into them by a very simple arrangement of doors from the main channel. In this way every inch of the land can be irrigated at

pleasure. Mr. Eisen's greatest trouble is too much water, as the company occasionally let down too much water in the creek, flooding the vines at the wrong time and destroying the crop of grapes.

The growth of everything here is simply astonishing, and no one can believe it without actually seeing it. Vines planted as cuttings two years ago from February or March have now a good crop of grapes on them, and poplars and other trees in four years are from twenty to thirty feet in height; lucerne, or alfalfa as it is called here, is as good as at the Redbuds, and is cut five or six times during the season. Some kinds of trees, however, do not get on—the mulberry, olive and orange—I suppose from too much water at the root. The cellars are large and of two stories, built of "adobes," or sundried bricks; the top story, which is in the roof, is used only for crushing the grapes, and for all sorts of lumber. The grapes are crushed with iron rollers, and fall on to a large wire riddle, which is shaken by the same power that drives the mill. The grapes and juice fall into a dobbin, which holds about 5 cwt., and is of wood, with a sloping point end. It is tilted by blocking the front wheels and raising the handles behind. These dobbins are run along the floor, and the contents shot down through traps into 1,500-gallon redwood vats below, where it is fermented, and after the wine is drawn off, water is put on to both the red and white skins for distillation. We saw no press on the place, and so conclude that they do not use any, but forgot to ask the question.

There are over 100 vats, mostly 1,500 gallons each, and a few of 3,000. We saw a pump at work taking the wine from five vats at one time through an inch hose to each vat, and pumping it into a blending vat of 3,000 gallons. Here it is stirred with a vertical shaft-stirrer, also worked by the water-power from the main shaft running right through the cellars. Various kinds of grapes are grown here, and all kinds of wine are attempted to be made—from fairly light wine from the Zinfandel to heavy Muscats and Ports. The most of the Zinfandel runs from thirty to thirty-five by Ballings saccharometer (the one used here) to forty-five for the Muscat.

Wine has only been made here in any quantity for five years, and as the vines are all young, one can hardly say yet what the quality may be in time to come as the vines get older, but at present the wines are not much to boast of. We were shown a red wine of last vintage, made to order with all stalk in it, and fortified up to 40 per cent. proof. It is to be used in making Port, and has plenty of fire and roughness, and no doubt, they into whose hands it will soon come will be able to add all else that may be required, and turn it out as Port by the time it is a year old. We were shown a white wine called Sherry, from the Fuhr Zagos grape, but without any Sherry flavor. Scarcely any wines but of the last vintage are in the cellars, and these are being sent away as fast as possible. I am strongly of opinion that the produce of this and similar vineyards will nearly all be made into brandy in a very few years, and will pay better for that than wine, except it may be sweet wines. Mr. Eisen is a large buyer of grapes, and up to the last year or two had it all his own way, but the presence of other buyers last year raised the price from \$20 to \$30 per ton.

The best wine tasted was a Muscat made from very ripe grapes and duly fortified, and I think by regulating the supply of

water that grapes may be ripened here to any extent, and good, sweet and heavy wines made. But to try to make clarets and hocks in this hot and dry climate is quite a mistake, and will never be able to compete in quality with the hill wines of the northern counties of California. Fortunately for them they have no phylloxera here yet. Their only trouble is the vine-hopper and thrip, but the growth is so strong as to bid defiance to almost any pest of this kind. From here we drove over the main creek again, and soon came to the property of the Fresno Vineyard Company, managed by Mr. Hudson, a thoroughly practical man, and who, I should judge, is a first-rate manager. He took some pride in astonishing us with a piece of Zinfandel grapes of forty acres, planted two years ago last January as cuttings, and which he estimates at 400 gallons to the acre. No doubt there is 300, and there may be more. Some of the stocks are already as big round as my waist. There are 450 acres of vines planted, and all laid out for irrigation; also about 1,000 fruit-trees of various kinds, and which have made extraordinary growth. There are about seven kinds of grapes planted, consisting of Zinfandel, Berger, Charbono, Fuhr Zagos, Malvoisie, Muscat Gordo Blanco, and a few Riesling. They are planted at good distances apart, about 10 x 10 and 10 x 8, and staked two or three years with a short stake about a foot above the ground, just to keep the stem upright; the only ones staked with long stakes are the Riesling. The vines are not topped, and already nearly cover all the ground, so that it is not possible to work them with horses. Mr. Hudson, who has had considerable experience in the older vineyards of Los Angeles, prunes the Muscat long so as to prevent coulure or bad setting.

Large cellars are being built and casks getting ready for the vintage, which begins in August in this part of the country. The cellar is all above ground, and built of adobes, in two bays, each about 50 x 120 feet, and each will take four rows of vats of 15,000 gallons each, which are being made of redwood, and leave room for two roadways of eight or nine feet each, with doorways at each end of them. The floor is of brick, grouted in with cement, and with gutters on each side of the paths, and the floors under where the vats are to stand have a slight incline towards the gutters. There is no machinery yet on the ground, but the best out is to be put down. A large distillery and boiler-house is built at one end of the cellar at about 40 feet distance. The roofs are all of sawn shingles, which make a much better roof than our split palings. They project about three feet, and so protect the walls to some extent, but the adobes made here seem to stand the weather well; some at Eisen's, eight years up, show very little signs of the action of the weather.

The irrigation scheme on which the prosperity of this part of the country wholly depend, is yet in its infancy, and troubles are already being experienced. Schemes of this kind are started by companies, and after a time get into the hands of one or two persons, who do pretty much as they please with the people who are depending on them for water. The people some miles lower down the river are up in arms because the supply of water for their cattle is taken away, and take the law into their own hands, and send bodies of men, 100 or more in number, to destroy the head

weirs. In some places too much water is put on the land, and the soaking from it forms marshy spots; other places get too little, and the whole thing wants carefully regulating by law or custom. But there is no doubt about the effect of it, as it can be seen on all sides that it has already caused a howling desert to rejoice and blossom as the rose; but the rose in this case is the oleander, which is everywhere planted among the poplars around the ditches, and is now in the most luxuriant bloom. We are glad to hear that Mr. Eisen, who may be considered the pioneer here, has done well, knowing as we do that the first men in new undertakings are often expending their energies for the benefit of others who follow after them.

A WORD FROM AUSTRALIA.

Charles A. Witmore, Esq.—DEAR SIR.—I received your last kind favor safe to hand, the Report of the Fourth Annual State Viticultural Convention, and allow me to return my warmest thanks for your kindness in sending it to me and also for the First, Second and Third Reports with their appendices, which altogether form an invaluable book for anyone entering upon vine growing in Australia, and especially in Queensland, as we have a climate very much like yours in California. The first intimation of your wonderful progress in viticulture that reached us was the report of Mr. Dowe, a special reporter sent out to you by the Melbourne *Leader* from Victoria, and his report of your horticultural progress and your system of irrigation has led to a thorough rousing up of the people so much so that there is a bill now before the Government at the present time to initiate an irrigation scheme on a large scale, to use the waters of the river Murray for this purpose. Also, in Queensland the Government of the day are moving in the matter of securing the water frontages for this purpose, where they are yet available. I have 640 acres with a frontage of permanent fresh water, and since I got your books, I have erected a windmill "American" to raise the water up to the highest point of the land into a reservoir, from which I can irrigate the whole of the land I am putting under vines; but I must tell you that your reports read more like a fable, so much so, that were it not for the reports of visitors who have brought home the confirmation of them, it would almost be beyond belief. I read with great interest the letters published in Adelaide, by Mr. Hardy of Bank Side, while he was visiting your vine growers and wine making establishments in California; I have no doubt you will remember his visit; and I am sure he does you full justice in every one of them. After reading the report of your last Convention, I must say that I admire the stand you have taken in the interests of the wine traffic; there is no doubt in my mind that the *base* of the whole thing is the manufacture of *hogues* wines, and the difficulty of getting the pure wine at a fair price into the hands of the bulk of the people; I do not know much of the customs of your people in California, but here in Queensland the curse of the land is bad spirits of all kinds chiefly brandy; I am sure that good wine would be a far more healthful drink, and I for one, wish you every success in your effort to establish by law your platform which is so plainly set forth in your last report. I shall be very glad to hear of your success at an early date.

From yours sincerely,

HOLT HOLT.

Pink Lily Lagoon, Australia, July 25th

AT THE FAIR.

In its Fair notices the *Daily Report* makes the following notice of the valuable exhibit of grapes made by Mrs. Warfield of Glen Ellen:

A WOMAN'S WORK.

"Much has been said and written during the past few years in regard to women's work. Year by year the field of their labor has expanded, and good management of a farm or vineyard by a woman is no longer wonderful. A striking example of success of the gentler sex in the viticultural field is the exhibit made by Mrs. Warfield of Ten Oaks Vineyard, Glen Ellen, in the Sonoma county display. Some years ago, upon the death of Dr. Warfield in this city, his widow took in hand a then entirely unimproved piece of property in Glen Ellen, and, as executrix of her late husband's estate, for the sake of her children, separated herself from all the lauries and society of San Francisco, and began to build up a vineyard. In spite of many drawbacks she succeeded so well that she not only turned her property into one of the most valuable vineyards in Sonoma county, but was, on account of her knowledge of viticulture, appointed Inspectress of her district by the Viticultural Commission. This year Mrs. Warfield shows a very valuable collection of grapes, amounting in all to 45 varieties. It is the finest collection of grapes ever shown in the Mechanics' Fair, although it is possible a still larger collection will be shown by J. H. Drummond of Glen Ellen before the close."

The 45 varieties mentioned are as follows: 1—Fether Zagos, a Hungarian grape; 2—Branch of Chauché Gris with nine bunches; 3—Sauvignon Vert, the Sauterne variety; 4—Tannat, a deep colored, full bodied wine grape of great keeping qualities from the Pyrenees; 5—Johannisberg Riesling, the Rhine wine vine; 6—Cabernet Sauvignon from Margaux, the principal component part of the celebrated clarets Chateau Margaux and Chateau Lafitte; 7—Malbec, a claret grape from Bordeaux; 8—Gros Mauzin, a very rare vine bearing a deep colored claret grape from the Palus district, Bordeaux; 9—St. Macaire from the same district; 10—Chasselas Gutedel; 11—Chasselas de Florence; 12—Chasselas Fontainebleau (imported); 13—Chasselas Rose; 14—Pinot noir from Epernay; 15—Pinot de Pernand, a great bearer of fine Burgundy type and high keeping quality; 16—Franc Pinot, the celebrated vine of Clos Vougeot; 17—Black Pinot from the Champagne; 18—Folle Blanche, the celebrated Cognac grape; 19—Alicante Bouschet; 20—Petit Bouschet, a grape of rare quality for color; 21—Teinturier, juice blood red; 22—Cesar, one of the rarest vines in California, originally from Burgundy; 23—Mataro; 24—Petite Sirrah from the Hermitage district; 25—Chauché Noir, or Pinot de Poitou of the Loire; 26—Charbono, the grape from which a great part of the Naglee brandy is made; 27—Zinfandel; 28—Lenoir, an American resistant hybrid, color intense; 29—Malbec, claret grape from Bordeaux; 30—Malvasia; 31—Semillon and 32—Sauvignon blanc from the famous vineyard of Chateau Yquem; 34—Marsanne from the South of France, an immense bearer; 34—Pinot Blanc, which makes the highest class white wines of Burgundy; 35—Franken Riesling (Sylvaner blanc); 36—Chauché Gris (Grey Riesling); 37—Burger; 38—Grec Rouge, table grape; 39—Gros Colman, French table grape; 40—Zabalskansoi, table

grape from the Crimea; 41—Milton, English hot-house grape; 42—Schiradoul, table grape from Persia; 43—Tannat, French table grape; 44—Gradiska, table grape from Hungary; 45—Orellans Riesling; 46—English table grape, name not known; 47—Black Hamburg; and 48—Gamsi Teinturier from Beaune in Burgundy.

PLACER COUNTY.

Of the display of Placer county in the Mechanics' Fair, the *Daily Report* makes mention as follows:

"The fine display of fruit made by Placer county has drawn general attention to that county. But few visitors who admire the exhibit have any idea of the hard work it was to get it together. The fact is that the display of Placer county is as much of a surprise to the people of this city as was the Citrus Fair held by the northern counties some time ago. Even the people of the county are surprised. Those who dwell away up on the mountains, while they knew that the foothills produced fine grapes, peaches, prunes, etc., did not know what that portion of the country really could do until they visited the Pavilion. On the other hand, those who lived on the foothills would not have believed, but for the present display, that the mountains, nearly to the altitude of a mile above sea level, could show such an array of apples, pears and other hardy fruits. The present exhibit is the result of an invitation from the Mechanics' Institute a year ago to Jonas J. Morrison of Loomis, formerly a lumber merchant in this city. He accepted the invitation for Placer county and at once went to work with J. F. Madden of Newcastle, W. B. Hayford of Colfax and other members of the Placer County Immigration Society and canvassed the county for contributions. A good deal of opposition was met with, as the county had also to be represented by its products at the State and County Fairs. But as the gentlemen named felt sure San Francisco was the place where the producers would be brought face to face with the buyers, and that here, and here only, would the exhibit be of any use to the county, they persevered, and the result is self-evident to all who visit the Fair. This is now the third week of the Fair, but so well has the fruit first exhibited kept, that the large quantity of fresh fruit which arrived this week, instead of taking the place of the other, demands more room. In consequence, besides the already large space occupied by the county, four tables in the garden have been covered with fruit. On one are shown apples, on the next prunes, the third is covered with peaches and the fourth with pears. The fruit, for size, color, flavor and aroma, would be hard to beat, even were the whole State searched, and the table grapes on the main stand call for the same high praise. The Flame Tokay grapes, which are now about ripe, are very handsome. They are rich in color and the bunches are large and firm."

Altogether, Placer county's display of fruits does great credit to it and will do it much material good.

The MERCHANT thinks it only right to give the names of those whose contributions have rendered the fine show above mentioned possible:

AUBURN.

Mrs. Geo. W. Armstrong is the only lady in Placer county who interested herself in the exhibit. She sent two artistically flowered patchwork quilts, lace trimmed skirt done by hand and knit and needle work ties, shawls, etc.

W. B. Lardner makes a curious exhibit from the same place of three vests, silk, satin and woolen, two flint-lock pistols and a pair of silver shoe buckles which belonged to a patriot who fought in the Revolution. Also a basket of flowers painted, and a sample worked by Elizabeth Branson who was 11 years old when the work was done in 1743. One of the results of the Citrus Fair last winter was the planting at Auburn of five hundred Mediterranean Sweets, a fine variety of orange, by the Auburn Orange Growers' Association. One of the trees is on exhibition and shows a fine healthy growth. Although only three years old it already bears four small oranges.

ROCKLIN.

From this growing neighborhood W. A. Himes contributed 25 varieties of wine grapes, all grown without irrigation. Hawk & Wood are represented by about 12 varieties of wine and table grapes.

LOOMIS.

Is represented by Zinfandel grapes grown by E. W. Maslin; yellow corn, 12 feet high by J. F. Hill; grapes, peaches and vegetables by J. G. Norris; peaches, grapes and wheat in sheaf over six feet high by J. J. Morrison; grapes, prunes and plums by J. M. O'Connor and four year old white brandy, Zinfandel Claret, Sherry, Riesling Port and other wines and blackberry brandy by John Kaiser. G. W. Turner and James A. Grant of the same place have contributed prickly pears, pears, melons and corn and rye.

From Penryn, P. W. Butler sends Bartlett pears, Hungarian prunes, varieties of plums and peaches and a fine collection of grapes. All this fruit is considerably above the average in size and quality.

From Lincoln, H. Barrett sends five varieties of fine grapes.

Ophir is represented by a fine display of nectrines, plums and prunes, contributed S. Quinn.

Newcastle makes a good showing. From J. A. Elliot have been received prunes, plums, peaches and some very fine Flame Tokay, Black Morocco and Purple Damascus grapes. I. R. Marston contributes prunes and plums; J. A. Robinson, McDewitt cling peaches, probably the finest on exhibition; Daniel Mason, peacha grapes and pears, and Geo. L. Threlkel, peaches, Geo. D. Kellogg of Newcastle, who is always to the fore when anything is to be done for the county, has just sent a fine lot of fresh fruit.

Doten's Bar is represented by eight varieties of grasses, and pears, prunes, peaches and apples, shown by J. H. Nixon.

Mount Pleasant shows Tokay, Muscat and Morocco grapes, probably the finest table grapes in the Fair, grown by Wm. Foster. From the same place Pendleton & English and Wm. Cartwright and L. P. Carey show some very fine grapes.

From Horsehoe Bar James W. Smyth has sent a collection of oranges, dates, tobacco, chestnuts, almonds, pears, peaches, prunes, plums, quinces and pomegranates. L. L. Crocker of the same place has sent evergreen millet, prunes, peaches, apples, pears, tomatoes, plums, figs and squash.

From Clipper Gap S. F. Woodworth sends an exhibit of fruit boxes and cases, finished from the same. They are almost as smooth as if they had been planed.

The display from Dutch Flat and Alta owes much to W. & P. Nicholl, bankers, who have forwarded regular installments of fruit to the Fair. The fruit sent came

from the orchards of H. A. Frost, J. W. Rinckee, W. E. Linn and W. H. W. Hudson as well as from their own orchard.

From Eoigrant Gap J. B. Chinn sends slate from his quarry, and Blue Canon is represented by some fine hops contributed by J. B. Knapp, the railroad agent there.

Forest Hill Divide sends a number of excellently taken photographic views of the scenery of Placer county. For these the county is indebted to Miss Birdie Chinn of Iowa Hill and J. N. Jacobs and W. E. Banbrock of Forest Hill. Perhaps these photographic views have given residents of the county greater pleasure than the fine display of fruit and other products. These views of mining scenes and mountain trails has carried many a visitor back in imagination to the "Fall of '49 and Spring of '50."

Michigan Bluff comes to the front with pears and apples grown by J. H. Willis, and Johnson & Co. and J. Zaengle send fruit and vegetables.

Some mineral curiosities are sent by Charles Traftson, and Gilbert Bros. contribute some 14 year old wine from the once famous town of Yankee pins.

John P. Zipp sends from Forest Hill interesting mineral specimens turned up by the plow.

The whole valley section surrounding Sheridan, Roseville and Lincoln is represented by the contribution of Supervisor H. Barrett, who makes a fine display of the fruit and grapes growing in the lower end of Placer county.

Colfax is represented by some of the finest fruit shown in addition to a creditable display of vegetables, nuts, hops, black marble and photographic views. The principal contributors are M. Lobner, C. Hansen, C. Williams, J. A. Culver, J. Butler, J. B. Whitcomb and Hayford & Moore.

The St. Helena Vintage.

The harvest in St. Helena may now be said to be fairly under way; our cellars are all busy crushing the luscious grape and completing preparations for the vintage, and a constant stream of heavily laden wagons pass through town carrying the grapes to the various cellars in the vicinity. All seem to agree that the present crop is a very excellent one in point of quality, and will make a very superior wine. In quantity, however, it will fall short of expectations, and Mr. Pellet assures us that he thinks, from his own observation, fully 25 per cent short. The present warm weather is ripening the grapes rapidly, but is apt to cause difficulty in fermentation, same as experienced last year.

Everyone is interested as to prices, and we have made careful and diligent inquiries regarding the same. We feel that we will be about correct in reporting the following: Mission and Malvoisie, \$13 and \$14, and in some cases, \$15 for the latter. Foreign varieties range from \$20 to \$22, as high as \$24 and \$25 being paid for lots of only Riesling. Many are paying cash and we think all are paying at least one-third in cash, and making varying terms for the balance.—*St. Helena Star*.

Cash Advances.

It is a MATTER of much moment frequently for farmers, merchants and brokers, having grain and other merchandise in warehouse, to raise money for present requirements of business. Those informed on such matters say that the Pacific Bank is the favorite, as they are well ware, from the amount of money constantly on hand in that institution, that they can always be accommodated on such securities, promptly and on the easiest terms.

CALIFORNIA BRANDIES.

EDITOR S. F. MERCHANT:—Few opportunities are given me here to report anything of interest to your viticultural readers. But for the benefit of all who favor ideas of progress, I may state what I practically find with regard to California brandies.

Constant contact with gentlemen who are accustomed to good old French Cognac, allows me to see how difficult it is to satisfy a scrupulous critic with anything that is not distilled from a grape, the essential oils of which are adapted to a product somewhat similar to the ideal distillate of the Charente.

The trials some modest and withal truly public-minded men have made in the preceding years, and samples of which have been present at the last two San Francisco Conventions, with distillates from a number of grapes of high merit, have proved to the observant grape grower, that you can not make a brandy of some virtue hygienically and commercially, if your raw material, the grape, does not contain them. Whatever contradiction or outcry against such a sweeping remark of mine may be caused, other persons who know better than myself maintain that the Mission grape cannot be counted in the ranks of those from which a truly good brandy can be made.

Aged Mission brandy of high ethereal expression "full in body," as people call its coarse taste, may satisfy the consumer whose taste has never been elevated above the saloon beverage, if compared carefully with any distillates from better grapes. Maybe the copious "rectifying" with other than grape spirit of the common cheapened brandy originally extracted from Mission wine may even improve its quality and effect. Judgment should be suspended in this occasion of the transformed so-called "California brandy" met with and discredited in the East when retailed. The adulterators must be lively at work while lazy Congress has extended the period for humbugging the public and injuring viticulture by the rascals who make and sell bogus wine and brandy. Several gentlemen of the medical faculty have told me of their own observations that injury has been caused to the health of moderate drinkers of what was given them as California brandy. The bulk of the distillates hailing from California vineyards are of the Mission wine. Can there be much that is deleterious in them if not transformed? Comparing good and old Mission brandies with young distillates from other grapes, more than once I hear frank expressions not at all complimentary to the former, while the delicacy of grape blossom ethers and of corresponding taste of the new brandies of different varieties strikes the people as what a good brandy ought to be—with the reserve of course—after some more years have amalgamated it into a soft and satisfactory tasting beverage, which is by many considered truly a medicinal necessity.

Men in the highest national positions, medical men who have great responsibilities, private gentlemen who have patriotic pride in the success of a home product, in the purity of which they may confide while so much adulteration surrounds all, take a lively interest in what is of quality. Not all approve of the commercial tendency to buy cheap and never mind quality. The eye of many a citizen is turned towards the Pacific Coast waiting that really good products should be presented from there. You cannot pass off, if you are low enough to be

thus inclined, a vulgar Mission brandy, even if it has age, to anyone of a refined palate. We must try to produce some quantity of brandies from superior grapes as a set-off to the poor feeling which a shrugging of the shoulder of many a would-be customer causes, whom you show only middling goods. It is not enough to send off any amount of ordinary Mission brandy and accept the opinion of easily satisfied customers, not accustomed to anything better, and who are contented with getting pure brandy (if they can get it from the third or fourth hand.) It will pay to distill not only wines that are tainted with disease—a sound wine only can make a perfectly sound brandy. There is, as I said, appreciation of what is really good—people are sending for it, and there is custom which will pay fair prices for fair value. Let the fact that we distill plenty of superior brandy be known, and the American public will compensate the pains of the man who looks to the production of quality chiefly. Do not let a bartering fellow, who gets everything low, come and without enquiring into relative quality and value, take what you will give him at a low price, contented with not that it tickles but grates on his palate. There are many, many people who will appreciate and pay for what is worth extra money. The moral then is, get rid of Mission vines, so that your production may be in harmony with the necessities of the day. It will be a grand time for California viticulture when no Mission wine will any longer be found, and we shall have quality wines and brandies all over. The expectation of merchants of long standing who import wines from Europe, is that our supply of good grade wines and brandies will early give them the opportunity of disposing with the importation of ordinary goods. The endeavor to reach this stage should be earnest.

F. PDFF.

729 Fifteenth Street, Washington, D. C.,
September 12, 1886.

Testing Bottles.

E. Ottair states in his Italian *Giornale l'Inicolo*, that a short time ago a wine firm in a town of Piemonte sold 5000 bottles of wine to different parties. Several days later that firm received one letter of complaint after another, affirming that the wine in the bottles became black (anneriva). The Piedmont firm had to take the wines back. The cause of that occurrence in the bottles was that they had been fused in a defective way—the manufacturer, in order to ease the melting of the substances composing the glass mass, had allowed an excessive proportion of potash, and the glass was affected by the acids of the wine, which in turn became partly decomposed, changed its color, brightness and taste. In this connection the advice of Prof. O. Ottair to test new bottles before employing them is a very proper one. He explains the method as follows: Fill some of the bottles with water, add about 11 grammes of tartaric acid and shake until dissolved. Leave the bottles thus for several days—stopper the bottles. If the glass is really good for holding wine, then, after five or six days, the water should be bright. But if you observe in the water gelatinous clouds or crystals are precipitated in the bottle, then the glass will be affected by the acids of a wine, and the bottles are not serviceable.

Subscribe for the MERCHANT.

WHAT IS IT?

M. Bosch, a grape grower of Palma, (Majorca), speaks in a plain way of an insect, the scientific name of which he does not know, a little larger than the engrillo and of the same brilliant shining bluish color, less round in its figure, winged and with a snout or trunk of disproportionate size, which it keeps ordinarily doubled up below its body, half the length of which it occupies. This insect he finds on vines. Another, which he supposes to be the female, of similar shape but stouter, of slightly roseate color and with rudimentary wings, appears likewise in his vineyard. Both move with great velocity, generally upwards, looking for folds in the leaves, and have their nests in cell-shape on these leaves. They are not very numerous.

This insect Mr. Bosch calls the "friend of the grape vine," and he does so with the greater pleasure as the noble plant has so many enemies. He states the discovery of this "friend" without knowing that others may long have preceded him. Looking for insects and chiefly for caterpillars on his vines. Mr. Bosch observed that an insect of the kind he describes was busy to the same intent, and on its trunk, traversed as with a sword, there was a caterpillar. Passing to a leaf where a group of the latter were feeding, the little animal went on in its work and rapidly put its trunk into one, lifted it up, went to the brim of the leaf and seemed to enjoy feeding on the substance of the caterpillar. The next morning the insect was gone from the leaf, but neither was any caterpillar there. Looking for more friends he found them and wished to have found more, for where they had been at work there the leaves of the vines were fresh and he could hope for ripe fruit in season. The nests of the "friend" he found in vine leaves, and their shape was like a diminutive bee hive with 20 or 24 cells apparently full of a blackish substance.

WINE MAKING.

Mr. Charles King writes as follows to the State Viticultural Commission:

We had last week some tanks of black grapes that ran over 100° during fermentation. These tanks stuck at 7 per cent. sugar. We pumped them into other tanks containing some fresh must and they went through without any further trouble. Our shallow tanks, 3½ feet high, helped us considerably. My Teinturier, with 25½ per cent. sugar, fermented dry in four days. Our white musts containing 25 to 26 per cent. sugar running up to 36° during fermentation, went dry in four days.

Subscribe for the MERCHANT.

EXPERIMENTING ON PHYLOXERA.

In the Spanish *Wine and Olive Oil Journal*, Don Jaime Serra Calvo of Olot relates that the trials with corn sown between phylloxerated vines for the voluntary transfer of the insect from the latter to the roots of the corn, which were reported to have been efficacious in Austria, are not reassuring to him. Mr. Calvo planted a hill vineyard four years ago and from that time cultivated maize between the furrows, but to no effect. His vines began to languish like those of other vineyards around his, and all perished. Mr. Serra Calvo had also tried hemp, up to 20 seeds sown to every grape vine, without finding any phylloxera on some hemp plant roots and only traces on others.

The same gentleman has observed that the advance of the pest, once appearing in a vineyard, is difficult to check. While finding out a focus of phylloxera, numerous colonies of them have left the same to lay their eggs in another place, near or far. He is of opinion that for kilometers around the focus the vines should be destroyed to check the spreading of the infection. In the district of Olot the Jacquetz is the only American variety that has reached full production, while with Riparia, Solonis and Vialla people there have not had such success. They find the Jacquetz juice of fuller body and color and sweeter than Grenache and Monastrell grapes yield it there. Only while the American variety named stands fresh among the ruins of the fine Catalan viniferas, mildew is the enemy to the former. Plants affected by mildew treated before the end of June regained their health and freshness—non-treated mildewed Jacquetz lost leaves and fruit.

SUBLIMED SULPHUR.

The "SICILIAN SULPHUR CO." continues to manufacture a superior quality of

SUBLIMED SULPHUR.

its perfect purity rendering it particularly suitable for Vineyards, Market-gardens, Landscapes, Sheepwash, etc. Large stock constantly on hand, for sale in quantities to suit at lowest price.

PHILIP CADEE, Agent.

Office—512 CALIFORNIA ST., San Francisco.

IT STANDS AT THE HEAD



In the Race for Supremacy in the Sewing Machine Trade.

The FIRST PLACE is universally conceded to the "DOMESTIC."

J. W. EVANS, General Agent.

29 POST STREET.

IREMAN'S FUND

INSURANCE COMPANY.
OF SAN FRANCISCO, CAL.

	CAPITAL.	ASSETS.
JANUARY 1, 1875.	\$ 300,000	\$ 747,488 45
JANUARY 1, 1880.	750,000	1,150,017 00
JULY 1, 1886.	1,000,000	2,048,842 58

The Largest CASH ASSETS AND INCOME of all the Insurance Companies Organized West of New York.

D. J. STAPLES, President, WM. J. DUTTON, Secretary,
ALPHEUS BULL, Vice-President, E. W. CARPENTER, Asst. Secretary,
N. T. JAMES, Marine Secretary



SALES REPRESENTED BY

E. C. HUGHES & Co., Proprietors.

CHARLES R. BUCKLAND, Editor.

Office, 511 Sansome street. Postoffice Box, 2366

TERMS—PAYABLE IN ADVANCE

One copy one year \$3 00
One copy six months 1 75
Including city delivery, United States, or Canadian
Postage

Entered at the Postoffice as second class matter

AGENTS

ANAHEIM MAX NEBELUNG
CLOVERDALE, Sonoma Co. J. A. CARRIE
DIXON, Solano Co. J. A. R. STORY
DUNCAN'S MILLS, Sonoma Co. C. F. SLOAN
FRESNO H. C. WARNER
GOLDEN RULE D. LEPP
JEY-SERVILLE, Sonoma Co. A. BALTZELL
HEALDSBURG, Sonoma Co. A. BALTZELL
LIVERMORE, Alameda Co. GEO. BECK
MAXWELL, Colusa Co. M. NATHAN
SANTA ANA R. F. CHITTON
SAN JOSE, Santa Clara Co. E. E. LEWIS
SANTA ROSA C. A. WRIGHT
STOCKTON W. H. ROBINSON
WINDSOR, Sonoma Co. LINDSAY & WELCH
WOODLAND, Yolo Co. E. BERG
HONOLULU J. M. OAT, Jr. & Co

FRIDAY, SEPTEMBER 24, 1886

NEW ZEALAND

Loan and Mercantile Agency

COMPANY.

(Limited)

CAPITAL \$17,500,000.
RESERVE FUND \$1,325,000.

SAN FRANCISCO OFFICE,

314 California Street.

Receives CONSIGNMENTS for sale in AUSTRALIA and NEW ZEALAND. COLLECTS Bills and buys and sells EXCHANGE on those Colonies. Orders for Australian SEED WHEAT, New Zealand ORCHARD and RYE GRASSES, etc., etc., promptly executed. WALTER F. LAWKY, MANAGER.
HERBERT FOLGER, Accountant

STEAMER CHANGES.

A few changes are now being made in the movement of the steamers belonging to the Oceanic Steamship Company. The Mararoa, after just making an excellent trip to San Francisco from the Colonies, will be withdrawn from the service. The Australia, which a few months ago was thoroughly overhauled and is now being fitted with new gears, will sail for Honolulu and Sydney on October 1st, taking the Mararoa's place on the return trip. The Zealandia is laid up for extensive repairs to her boilers and machinery, besides having a general overhaul. She will subsequently take up the Mararoa's place in the Australian trade after the return of the Australia from Sydney. Then with their four steamers all in first-class working order the Oceanic Company will have three boats running between San Francisco and the Colonies, the fourth one being utilized for the Honolulu service alone and running so as to continue the regular fortnightly service with Honolulu. The Australia will be, after her present trip to Sydney, in the regular Island trade, while the Alameda, Mariposa and Zealandia do the Australian running. It is a matter for congratulation that such an extended trade on the Pacific should be carried on by locally owned steamers, and it would be well for San Francisco if other business men were to follow the energetic example of the founders of the Oceanic Steamship Company.

TRADE FAILURES.

San Francisco has within three weeks produced four large trade failures with aggregate liabilities of \$1,500,000. It is a long time since our commercial circle has been so startled, and business men have been asking one another "Who will be the next?" It seems to us that business methods are conducted here somewhat loosely. There is often too much discrimination on the part of the banks. They will readily advance money to men whose financial reputation is considered first-class, almost without question. Yet an outsider, whose standing may not be the subject of as much every day talk as the reputed rich merchant, but who is financially on a better basis, might seek in vain for temporary assistance. There are many people who are glad to see the banks "bitten," just on account of this very reason.

The failures that have just taken place were unexpected. Houses of old standing and good reputation have come to grief. Nobody would have thought it. Of course these failures are to be regretted, but we think that they will be productive of some good. They have disclosed a very loose way of doing business. The statement of Keane Bros., made some months ago, with a good excess of assets over liabilities, seems to have been accepted by the bank without question. It was only after the suspension that any doubt was raised as to its accuracy. The fallacy of "good will" being included as an asset has been fully proven. In this case where the failure followed so shortly, the good will was practically worth nothing as nobody would pay anything for such an article in a bankrupt establishment. In Baum's case the firm was supposed to be worth nearly a million dollars. Everybody thought so, yet there was an indiscriminate borrowing of money from other business firms and it was generally obtained readily because the firm was reputed to be rich. The mere fact of needing such assistance from several quarters fully disproved any such supposition. The difference in the city valuation of the Baum property and the self valuation is also remarkable. The much abused tax assessor now can score a point and it is probable that there will in future be more reference to, and reliance in his figures.

The mercantile agencies seem to have been at fault also and surprised at the turn things have taken. It is difficult, indeed, to see how they can really ascertain the facts about a man's business standing. Conservative men keep their affairs to themselves. If application be made to a bank and the party in question is a debtor to that bank, then no information will be given to enquirers that would tend to hurry a prospective downfall. A man's private friends also are not going to impart information to enquirers even if they do know how matters stand. If a man is slow pay then the parties to whom he is indebted will keep quiet, at any rate till they have collected their bills. There is doubtless many a firm that is rated too high at the mercantile agencies. There have been frequent and loud complaints of dull times in San Francisco for a few years past and this alone would indicate a diminution of business and shrinkage in values. The surrounding trade of this city is not, in some lines, as large as it used to be, yet the chances are that just as heavy stocks are carried now as in former years. In dry goods and clothing especially this is a great

mistake. In these lines there are constant changes according to fashion, and the supplies of one season will not fill the requirements of the next. Moreover it is a stock that does not improve through being laid away on the shelves of a warehouse. There is a deterioration in value besides the heavy expenses involved in the regular routine of business and the interest on the original investment which is not turning over. It was frequently remarked, during the overland freight war, that large stocks of dry goods were being imported at the cheap rates and that the market was greatly over supplied. The recent failures have doubtless been accelerated by these events. We trust that we have heard the last of them and that confidence in business circles will soon be fully restored. At present there is naturally a nervous feeling. San Francisco has been remarkably free from large trade failures and it behooves business men to endeavor to prevent their recurrence. Let us have more cash and less credit.

INTERNATIONAL EXCHANGES.

The MERCHANT has frequently drawn attention to the number of applications, from abroad, for copies of American publications, and especially those of California, which relate to the various branches of agriculture. We have now the pleasure to report that the agent here for the New Zealand Government has been requested to furnish a further supply of publications similar to those that he forwarded in July. Among the books then sent were: Reports of Charles A. Wetmore, Chief Executive Viticultural Officer of California, and of the Third and Fourth Annual State Viticultural Conventions; also Orange Culture in Florida, Louisiana and California, by T. W. Moore; The Orange, its Culture in California, by W. A. Spalding; Address of the State Irrigation Society; Matthew Cooke's work on Injurious Insects; Reports published by the State Horticultural Society, etc.

By the last mail from New Zealand, Mr. Buckland, the Agent here for that Colony, received an acknowledgment of the receipt of the books sent, and a further request that all copies be duplicated, if possible, especially those relating to Olive and Orange Culture, and the Reports of the Chief Executive Viticultural Officer. In return there have been received here from the State Forestry Department of New Zealand the following official publications: Report on N. Z. Forests and the state of the Timber Trade—Report on Barks and Secondary Forest Productions—Progress Report of the N. Z. State Forestry Department.

Report on Fruit Blights and Diseases of Fruit Trees in N. Z. This is out of print now, but the Queensland Government has applied for permission to re-publish it.

Memorandum on the establishment of a School of Forestry, Pomology and Agriculture at Whangarei, N. Z.

Application has also been made for a number of the United States official publications relating to Fisheries and Fish Culture by the Marine Department of New Zealand. These interchanges of courtesies are very gratifying and tend to strengthen the friendly feeling existing among Anglo-Saxon nations.

Agriculture is now being taught in the primary schools of New Zealand, five authorized books being in use in the Colony. Agricultural chemistry is also being taught in one of the high schools.

A RICH REPUTATION.

Recent developments in financial circles show that a rich reputation is the passport to indiscriminate borrowing and reckless trading. The firm of Baum & Co. had the reputation of being rich, and has certainly made the most of its reputation in the direction of borrowing from banks, corporations and private firms. The banks have evidently been exceedingly remiss in their willingness to lend, and the Baum business reflects but little credit on the business methods of our city banks. The losses they have experienced will, it is hoped, do some good, and prevent the inflation that is too often given to parties by their being floated on borrowed money. When one firm can succeed in borrowing indiscriminately from some half dozen banks, it shows great need for reform in bank management. The banks are, to a certain extent, to blame for the losses of the individuals. Had not the banks, which are supposed to be conservative in business, continued to keep Baum afloat on borrowed capital, then the crash would have come long since and many thousands of dollars would have been saved to individuals who have followed the example of the banks. The banks should lead in commercial matters but they should not lead astray. The recent failures show that they are far too loose and careless in their business.

A rich reputation is often the means of inflicting incalculable injury. When an unscrupulous person is supposed to be rich, there is but little obstacle in the way of his practising a wholesale swindle. Style and living on credit go a long way toward captivating the general public. The circulation of a few rumors of successful speculations do the rest, and the man is regarded as a millionaire. If he be a clever and artful schemer, he can trade upon his reputation for richness for years. The crash will doubtless come and drag down many innocent and honest men who have worked hard for their money, but who have been dazzled by the brilliancy of the reputed rich, and have "temporarily assisted" him because he was a "little short" and his money was all "tied up." The result is they all become tied up. Such may or may not be the case with Baum's failure. He has certainly shamefully deceived his friends who would not have suffered so severely had the banks taken the precaution to become acquainted, as they should have done, with the correct standing of the firm. Their acceptance, a few weeks before the failure, of a statement from the firm which showed that the assets exceeded the liabilities by almost \$1,000,000, amounts to culpable negligence. A bank should certainly be in a position to judge whether a man is a millionaire or a bankrupt. If there are any more such firms in the community, who are trading on a rich reputation, it is high time that they were waded out and that the merchants who are really rich should be known. The recent disclosures tend to throw a doubt upon all, and it is the duty of the banks to assist in placing the business of California on a sound commercial basis. This can only be done as we have indicated. The sooner the reputed rich are exposed, the sooner the present uneasiness will be quieted and business will become more firmly established. With the extinction of the reputed rich we shall know who are really rich, and future trade records will not indicate transactions that are dishonorable and corrupt.

OUR SUGAR EXPORTS.

It is very generally supposed that all our imports of Hawaiian sugars, which are refined in San Francisco, find a market in California. The manufacture of beet sugar in this State cuts but little figure in the market's supply, and forms no feature in regulating prices. The average annual crop from the Hawaiian Islands has been from 60,000 to 80,000 tons. But the season just ended has been an unusually productive one, and the crop exceeded 100,000 tons, the Hawaiian Commercial and Sugar Company's property alone yielding more than 14,000 tons. It may be said that the whole of California is practically supplied with Hawaiian sugar, which has been refined at one of the two local refineries. But few people are aware of the quantity of sugar that is shipped out of the State by railroad transportation. Early in the year consignments were made to Louisiana and New Orleans by the American Sugar Refinery, which was then obtaining its supplies from the Islands before the new refinery buildings were in full working order. These were raw sugars which had not been refined here. Besides this there have been very large exports of refined sugars which find a ready market, at good prices, as far east as the Missouri. The total quantity of sugar shipped overland from California, up to the end of August this year, amounted to 82,286,610 pounds or 41,143 tons. Of this, 272,450 pounds was shipped from Oakland and was probably the product of the beet refinery, the remaining 82,000,000 pounds being Hawaiian sugars. This export movement is significant, and shows that the effect of the Hawaiian Treaty is to extend trade from California into Eastern sections after providing employment, through manufacture, for hundreds of people in this State. This is a good sign and we are glad to see that, in some branches of trade, California can not only hold its own but can even extend its operations. It has been too general a complaint that all manufacturing business was being prevented here by Eastern competition. This is a move in the other direction, and possibly a little more energy in other lines might induce similar results.

The sugar exports from San Francisco during the first eight months of the year, by overland routes, were as follows:

Month—	Pounds.
January.....	1,193,440
February.....	4,935,230
March.....	18,435,720
April.....	19,406,490
May.....	7,143,860
June.....	12,089,560
July.....	8,656,010
August.....	10,426,300
Total pounds.....	82,286,610

The extent of this sugar movement will be better understood when it is stated that the total quantity of merchandise shipped overland from California, during this period, amounted to 332,505,540 pounds. Therefore, our sugar exports from this State have been almost one-fourth of our entire overland export trade.

QUICK MAIL DELIVERY.

The quickest delivery of Australian mails in England, by the San Francisco route, has just been achieved. The steamer Mararos arrived here on the 4th inst., eighteen days out from Auckland. Her mails connected with the Etruria, leaving New York on 11th inst. and arriving at Queenstown on 18th inst., thus making the through service in thirty-two days. This fast connection could always be made if the steamers left the Colonies a day earlier, so as to arrive here on a Saturday morning instead of on Sunday.

OUR RAISIN TRADE.

The importance of growth of the California raisin trade is somewhat surprising. We have prepared and publish a comparison of the exports of raisins from California, by overland shipments, during the first eight months of the past and present year. These may be taken as a fair indication of the increase in production and the total export trade. They show that there must be a very large area now planted to raisin grapes, especially in the southern part of the State. The increase in bearing vines will be still larger for the next few years so that we may soon look for a sufficient supply from this State to fill the requirements of the whole of the United States. Curing, grading and packing have also improved each succeeding year and the raisin business may now be considered to be fully established as one of our principal productions.

The first shipment of raisins overland, last year, was made in September, while we find that the first shipments of the present season were made in August. Though small in quantity they indicate a generally earlier season, as the shipments were from both the north and southern ends of the State, being 2,930 pounds from Sacramento and 2,200 pounds from Los Angeles. The early marketing of a crop is always considered desirable as the first fruits bring fancy prices. But the fruit should be fully matured and well cured before being sent to market even though it may bring a cent or two less per pound. From the tables given below it will be seen that the exports of raisins this year have been three hundred and fifty per cent larger than they were in 1885, the quantities shipped overland being 854,050 pound in the first eight months of 1885 and 3,082,870 pounds in 1886. Los Angeles has, this year, exported almost two-thirds of the whole, nearly 2,000,000 pounds of raisins, San Francisco coming next with 768,400 pounds. Last year the heaviest movement was in the month of January, while this year nearly 2,000,000 pounds of the raisins were shipped during the low freight month of March, Los Angeles exporting more than 1,285,000 pounds. The following table gives in detail this year's shipments, monthly, from the various distributing centers. Thus:

Month.	Los Angeles.	San Francisco.
January.....	48,570	91,230
February.....	147,080	83,790
March.....	1,285,950	566,450
April.....	161,400	16,970
July.....	61,400	9,960
August.....	2,200	.....
Total No. of pounds..	1,966,690	768,400

Month.	Colton.	Stockton.	Sacramento.
January.....	48,900	.....	48,250
February.....	104,950	75,250	9,140
March.....	23,360	.....	.....
July.....	.....	.....	.....
August.....	.....	.....	2,930
Total No. of lbs..	182,210	75,250	60,320

There were no shipments in May or June.

The following table gives a comparison of the total shipments from all parts of the State in the different months of each year:

Month—	1885.	1886.
January.....	416,800	139,800
February.....	157,010	703,270
March.....	162,800	1,974,190
April.....	69,200	191,730
May.....	27,630	.....
June.....	100	.....
July.....	20,450	71,450
August.....	.....	5,130
Totals.....	854,050	3,082,870
Increase during 1885.	2,228,820 pounds	.....

The foregoing figures, showing such an increased export, within a year, of one single commodity, are very remarkable and prove fully the productiveness of the State and to what an extent it is being put under cultivation in vines.

FORESTRY.

The national importance of forestry is attracting attention in other parts of the world as well as in the United States. The New Zealand Government has made provision for the establishment of a School of Forestry, Pomology and Agriculture, the mode of instruction to be by lectures; experiments and analysis in the biological and chemical laboratories; practical work in the plantations, forests, orchard garden and farm. The staff will consist of a general manager, biological lecturer, chemical lecturer, lecturer on forestry and pomology, mathematical lecturer, a gardener and forester and a dairymaid. A block of nearly 4,000 acres of land has been set apart by the Government for the purposes indicated, and pecuniary assistance will also be afforded. It is estimated that at the end of the second year there will be some profit returned from the farm, and that in eight years the net profit should be at least \$50 an acre. Items of revenue will be derived by the growth of oil, yielding eucalyptus, mint and other drug and perfume yielding plants, or by economic plants such as the earth-nut which is largely imported there. At the college already established in South Australia, the fees charged to students vary from \$100 to \$350 per annum. The course of study extends over two years, and the students, of whom there are twenty-eight, are paid for their work by contract time if possible, or at the rate of six, eight and twelve cents an hour.

In his report to the New Zealand Government on the establishment of the School of Forestry, Pomology and Agriculture, Professor T. Kirk, F. L. S., Chief Conservator of State Forests, says:

The rapid development of fruit-culture in the Colony, and the important position which it is fast attaining as a leading industry, render it most advisable that its pursuit should be encouraged as far as possible without undue interference on the part of the State. It is therefore proposed that the school should afford facilities for acquiring a comprehensive knowledge of pomology, in addition to forestry and agriculture. With regard to the formation and characteristics of soils, their working and management, drainage, etc., teaching would be identical in all the branches.

So, also, to a certain extent, with the nature and requirements of plant and animal life, animal and vegetable physiology, the general teaching would be identical, although important differences would occur in detailed teaching. Up to a certain point, therefore, the general course of teaching would be practically the same in all three subjects, a matter which will be found of great assistance in commencing work.

The proposal to establish a school for fruit-culture, so far as I am aware, is certainly new. It may therefore be expected that objections will be raised against it, simply on the ground of its novelty. It is consequently desirable to direct attention to one or two of the chief advantages to be derived from its successful working.

The proper training of youth as fruit growers necessarily includes those matters generally recognized by intelligent settlers

as essential to success in fruit cultivation, the preparation of the soil, and its adaption to the requirements of the particular kind of plant in question; planting as distinct from "sticking a plant in the soil;" heading down in the early stages; summer and winter pruning, etc.; but these subjects, great as their importance may be, are less important than others which, at present, have received but little attention.

Another important subject, which in some districts is crippling the fruit industry, and reducing the yield to a point which affords no profit, is the prevalence of fungoid and insect pests. I need not insist here upon the extent of the injuries arising from these causes, but will direct attention to the advantages to be derived from a course of training that would enable the fruit grower to recognize the different kinds when they make their first appearance, and teach him the lines upon which they can be most successfully encountered.

Every year the newest varieties of fruit trees should be introduced from Europe and America, and their adaptability to the climate of New Zealand properly tested. The school would thus become, not merely an institution for training fruit growers, but a most efficient means of diffusing pomological knowledge and assisting an important branch of industry.

The experimental gardens will prove valuable adjuncts to teaching in forestry, pomology, and agriculture alike, while their value in connection with the introduction and propagation of sub-tropical plants of an economic character, new varieties of pome-fruits and other plants yielding drugs, perfumes, fibres, material for the manufacture of paper and numerous other kinds, cannot easily be over-estimated. Grasses and forage-plants should receive special attention.

Instruction in the nature and characteristic of plants and animals, and the processes of agriculture, might be imparted in primary schools by teachers specially qualified for the work, and given effectively, would form an excellent ground-work for the higher teaching of the school of forestry and agriculture, especially if the elementary teaching could be supplemented by practical teaching in local experimental gardens, as already suggested. In this way it would not be difficult to impart a large amount of knowledge respecting the uses, habits and general characteristics of the ordinary fruit trees and the plants of agriculture as well as of the chief insects which attack plants and animals. But the teaching should be carried further; it would not be difficult to impart a knowledge of the general structure of plants and animals, and to some extent of their anatomy and physiology. The chief facts connected with the germination of seeds, and mode in which plants and animals obtain their food, the processes of assimilation and development, may be stated in such a manner as to interest children, and made a grand means of developing their faculties of observation and judgment. In order to encourage the acquisition of elementary knowledge in the cultivation of the soil, it is desirable to offer a number of free scholarships in the School of Forestry and Agriculture for competition amongst scholars in the primary State schools and in private schools of similar grade.

The Anglo-American Times says that California should make a grand display of its wines at the American Exhibition in London. It is an opportunity for California, for it will open the eyes of wine-growers in Europe to the chance they have there

THE "OENOTANNIN."

Oenotannin is one of the most important and useful discoveries ever made in the interest of the wine grower, the wine merchant and the consumer of wine.

It is made from the grapes, the skins and seeds of certain Gironde wines, grown near Bordeaux. It regulates the fermentation of wines just made, and cures that of young wines. It concentrates and diminishes the lees and strengthens the wines against alterations, rendering them purer and therefore more wholesome to the consumer. It strengthens and develops their color and their natural bouquet, prepares them for and helps their early clarification, and thus ripens them for earlier delivery.

The official report of a recent analysis made by Mr. M. Boutmy, the eminent chemical expert of Paris, declares that: "the elements composing the Oenotannin are all to be found in good wines." Besides Mr. Boutmy, the following scientific gentlemen:

Mr. M. Francois, the celebrated chemist of Paris, Mr. Mauménué, the celebrated chemist of Paris, Mr. Bidard, professor of chemistry, of Rouen, Mr. Faucé, the eminent analyst of the wines of the Gironde, member of the Academy of Sciences, at Bordeaux, Mr. Béchamp, professor of chemistry, Montpellier, Mr. C. Saintpierre, professor of chemistry, Montpellier, Mr. Ed. Robinet, the distinguished Oenological chemist of Epemay, all testify to the excellence of Oenotannin for purifying, strengthening and preserving white and red wines.

The Oenotannin is converted in the wine into gallo-tannic acid, and, combining with the ferments, mycodermes and albuminoids, and precipitating these redoubtable enemies to the conservation of the wines, insoluble, into the lees, it promotes the perfect development of the color and strength, and of the bouquet and natural good taste of the wines by their thorough and permanent clarification.

It combines so perfectly with the other constituent elements of wines, that even the most searching analysis cannot find it nor separate it. It being made of wine, i.e. of grapes, skins and seeds, it becomes part and parcel of the wine.

Oenotannin is greatly superior to the tannin of commerce, being astringent without bitter taste, and its action being by far more reliable and effective than that of Tannin, without the inconvenience of bad after taste and of hardness, as produced by the latter.

For blended wines the Oenotannin is invaluable. It facilitates their thorough combination, equalizing their different characteristics, and giving them the desired cleanness and unity of taste and that reliable keeping-quality, which cannot be obtained without it.

We understand this is imported by Chas. Meinecke & Co., San Francisco.

The Wine Association of Victoria, Australia, will hold an inter-colonial wine exhibition in Melbourne in November and December, for the purpose of raising funds with which to erect a wine hall, technological and engineering schools.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

THE EUROPEAN WINE CROP.

Correspondents of the New York *Times* and *Spirit Review* give the following reports of the vintage in various parts of Europe:

FRANCE.

The situation in the Gironde wine region changes from day to day as we approach the vintage, but it is far from improving. The loss from dropping of grapes can now be better estimated: it has certainly been considerable. The oidium reappears intensely nearly everywhere. Although sulphuring is rather late in the season, it continues energetically. The mildew is still ravaging many localities, even vines where under sulphate of copper treatment it had vanished. The valuable Millardet remedy is the treatment now resorted to. Neither pains nor money are spared in the Department to put or keep vineyards in as good a condition as circumstances will allow. In neighboring Departments there is much complaint of injury resulting from mildew and oidium. In the Department of Tarn-et-Garonne the vintage prospect is magnificent, both as regards quantity and quality; the phylloxera has appeared this year mildly in a few spots. The persistently dry weather in the south of France has been followed by a copious rainfall, and the ripening of grapes has made such marvelous headway that the vintage may now be commenced without delay. The chlorosis disappears from grafted vines, and the submerged vineyards in the same plains promise an abundant yield.

IN SPAIN.

Advices from all Spanish wine districts are unanimous in declaring that the vineyards are in a much better condition than had been expected would be the case, and that at least a good average yield may be relied upon, unless something unexpected and extraordinary should happen in the shape of untoward weather, not likely to occur between now and October. The mildew, about which such apprehensions were entertained at one time, has in reality been insignificant as to the damage done, for it seems that the weather this year was not favorable to its development and propagation.

IN PORTUGAL.

The impression is gained that the 1886 vintage will not result as large as that of 1885. The wines at first promised unusual abundance, but the copious rainfall, high winds, and low temperature in June and July have materially crippled the yield, and it is more than probable that the quantity to be secured will fall short of last year's. In Torres Vedras the vines are doing remarkably well, so that a good, average crop is likely to be secured. The phylloxera has wrought fearful destruction in the Barrois region; even the proprietors who made the most extensive preparations and strenuous efforts to combat it are among those having suffered most. In Celorico de Barto the outlook is most encouraging, the same being the case all along the banks of the Tamega, the portion producing the best wines, a most abundant vintage being expected. There has not been a vestige of oidium, the only disease known in that part of Portugal. There the yield will exceed last year's.

IN ITALY.

In Southern Italy so many localities have been mildew-stricken that an estimate of yield is as yet difficult there. Fortunately,

Sicily has been spared the phylloxera entirely. The Barletta country has a marvelous yield, greater even than in 1881 and 1885, and the quality promises to be better.

IN HUNGARY.

The drouth has lasted so long that the rains have not soaked the ground around the vines sufficiently yet to do much good to grapes which remain on the whole backward in Hungary. The sanguine hopes prevailing in June have been dashed at any rate, and Hungary will not have an abundant vintage this year. Still, plenty of rain may do wonders yet, and will also be required to secure good quality. The drouth caused grapes to drop in many localities.

PROGRESS MADE WITH THE WINE BILLS.

(New York Wine and Fruit Grower)

When it was proposed by a few wine growers last January to ask for certain legislation at Washington for the benefit of viticulture, it was thought by many that it would only be necessary to present our bills to have them passed and become laws. But when it is remembered that there were some twelve or fourteen thousand bills introduced, and that there was an active, interested lobby behind a great majority of these, each trying to push ahead of the other, and not time enough to pass half of them during the session, it will be seen that it is not an easy matter to get a bill through Congress in one session. As it is, the bills introduced have been favorably considered; and that one providing for the use of free brandy spirits for fortifying Sweet Wines, passed the Senate as an amendment to another bill, and now only awaits the concurrence of the House, which no doubt will be secured early next session, as the bill is well up on the calendar.

The other, the Spurious Wines bill, is resting in the Committee of Ways and Means, and can be reported to the House at any time during the next session. It is understood that there are friends enough in the House to pass it at any time when called up. It is more than probable, however, that the bill will be reconstructed and introduced again, or the present one materially amended and improved in committee. All interested may rely upon one thing as certain—that those who have been chiefly concerned in the work of pushing this legislation on Congress, Mr. Wetmore and the Editor of this paper, will renew their efforts with redoubled energy next Winter; and in the light of the experience gained during the past session, there is no doubt that all will be got through satisfactorily.

There seems to be an impression prevailing among Eastern wine growers that Californians were chiefly desirous of securing the passage of the Sweet Wines bill (free fortification), and were not specially in earnest in the Spurious Wines bill. This is an error. Californians were equally desirous of passing the Spurious Wines bill, and when introduced in the Senate as an amendment to the House bill, both bills were combined in the amendment; but the Senate Committee reported against acting on the Spurious Wines bill, because it would, as they feared "produce debate" on the question of enlarging the sphere of the Internal Revenue Bureau, which most of the leading Senators on both sides were anxious to avoid this session.

We cannot forbear, in this connection, to speak of the heroic effort made by Mr. Charles A. Wetmore as a representative

of the California Viticultural Commission. Mr. Wetmore has certainly shown a devotion and persistence worthy of the highest praise—in fact, above all praise; and we do not say this merely to compliment him, but because we mean it with all the emphasis we can give to the statement; for we have been his constant companion and helper, and know whereof we speak. Mr. Wetmore has pursued his labors in this matter with so much discretion and foresight, and has manifested all through such a spirit of fairness and justice to all localities and interests, that the distrust and jealousy existing when he first began his labors here, have almost entirely disappeared, and all the wine growers of the country are working together in complete harmony, feeling that the common good and safety of all sections are being served in the work undertaken. We bespeak patience and faith in ultimate success among our people, and we offer the assurance that this journal will not relax its efforts to secure a just and satisfactory measure of legislation, and urge our friends to look all the difficulties square in the face, and try to overcome them by sustaining those who "go to the front" to fight the battle for honest wines.

There is one thing that should be done in all the State political conventions without regard to party, viz: a plain demanding protection of the public against adulterated beverages. For not only is the falsification of wines working great injury to the vineyard interests of the country by the demoralization of the markets in respect to prices, and by bringing disgrace upon honest wines through the evil effects of the toxicant and intoxicating, drugged and falsified article, but public health and morals are assailed through the fraudulent devices by which people are tricked into drinking these alcoholized and poisonous artificial wines. The state of things calls for legislation, and it should be sought in the National Legislature; for the laws should be uniform and in full force in all the States. State Legislatures should not be looked to for remedy in this matter; if some States failed to legislate, spurious wines could be made in those States, and sold in the other States with impunity. The question of the adulteration of food and beverages, is as universal as the national domain, and takes hold of the corollary question of the physical development of the nation as a race of beings. We think this issue should be met now, before honest industry is overborne by fraud, and settled in favor of honest and healthful vineyard products.

One of the most thoroughly practical and generally useful publications for farmers or fruit raisers is the *Southern Cultivator* and *Dirie Farmer*, published at Atlanta, Ga. It is issued monthly and consists of fifty pages of valuable and instructive reading matter relating to fruit, vegetables, flowers, live stock, poultry, the dairy and general farming.

Boys and girls may be had—particularly boys—for service at wages, for indenture, or for legal adoption, by applying with recommendations to E. T. Dooley, Supt. Boys and Girls Aid Society, Baker street, corner of Grove street, San Francisco.

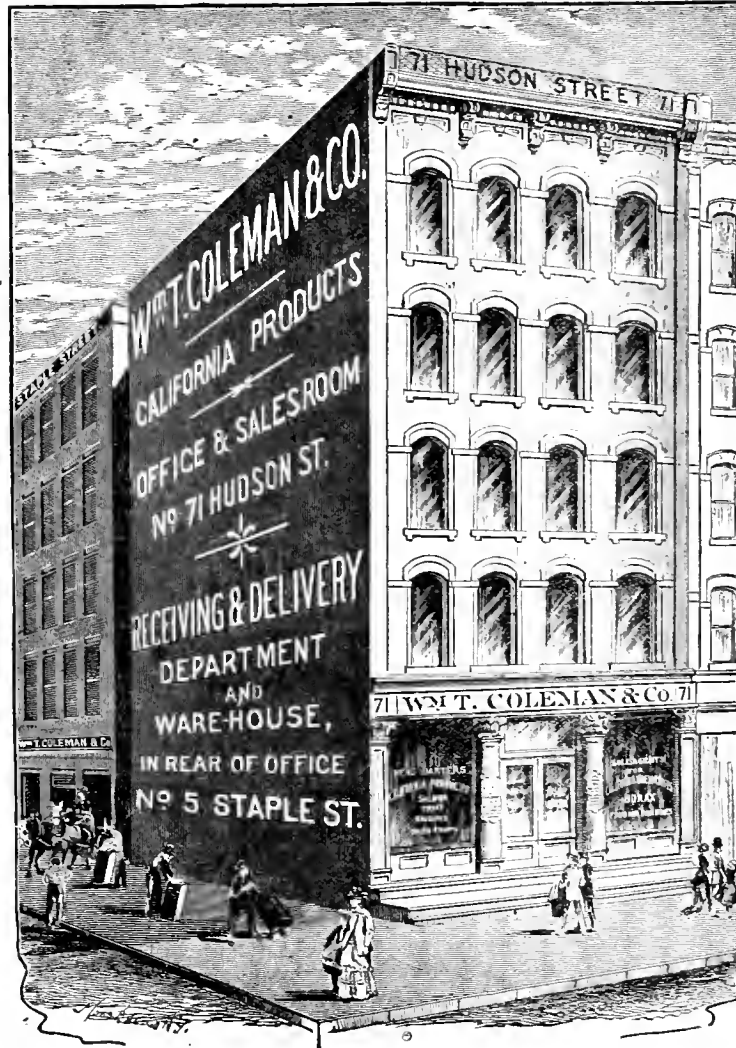
In another part of this paper, Dr. McDonald advertises that his bank is prepared to advance money to farmers who have grain and other merchandise in warehouse. Will he assist the farmer by making advances on wines?

CALIFORNIA WINES AND BRANDIES,

San Francisco,
121 Market Street.

Astoria, Oregon,
Flavel's Wharf.

Chicago, Ill.
91 Michigan Avenue.



New York,
71 Hudson Street.

London,
4 Bishopsgate St.,
within E. C.

Liverpool,
54 Drury Buildings.

WM. T. COLEMAN & CO.

71 HUDSON STREET

NEW YORK CITY.

ALSO AGENTS FOR
ALCOHOL, WINE AND SPIRITS.

WINE FROM DRIED FRUIT.

(Bradstreet's, Saturday, August 21, 1886.)

When the ravages of the phylloxera first devastated the vineyards of France the imports of raisins and currants into that country were very small, amounting only to between 6,000 and 7,000 tons a year. The failure of the vintage for several years in succession influenced French wine makers to turn their attention to the dried grapes known as raisins and currants. It might be expected that a people who displayed such peculiar ability to make a stimulating drink out of a cup of water and a piece of sugar would soon find a method to make a wholesome wine out of dried fruit. Such has been the progress of this business that for the last three years the imports of currants and raisins have averaged 65,000 tons or an increase of nearly 60,000 tons in seven years. The magnitude of this business, which is comparatively new, can be more correctly estimated when it is known that these imports represent no less than 270,000 tons of fresh grapes.

It was only natural, when the extent of the business became known, that there should be complaints from the wine-growers. The Government's attention was called to the fact that French wine-growers were suffering from this competition, and the Minister of Agriculture ordered an investigation. The report is favorable to wine manufactured from dried raisins and currants. The preparation of the wine, according to this report, is simple. The dried fruit is put into a vat with water at a temperature of 68 degrees Fahrenheit, there being 55 gallons of water to every 100 pounds of fruit. At times a small quantity of sugar is added, in order to assist fermentation, which as a rule soon occurs and generally continues for a week or two. At the end of this period the water is drawn off and the wine is made. As a rule it is of a very pale color. When highly-colored wine is required it is mixed usually with the very darkest Spanish wine. These wines, when made, contain from 6 to 10 per cent. of alcohol, but they have very little tannin and do not keep long.

The greater part of the supply of fruit is obtained from Greece and Turkey. Of currants alone France imported the last two years 80,000 tons. The demand for this quarter has greatly enhanced the price. The production has not increased, remaining almost stationary. While the imports into the United States decreased from 12,500 tons in 1883 to 7,400 tons last year, those of France increased from 20,260 tons to 40,000 tons for the same period. The fruit from the Ionian Islands are most desirable, because in curing it is allowed to remain upon the tree until dried, the stem being twisted in order to prevent the sap from ascending. The average price of the dried grapes in France, duty paid, is 5 cents a pound, the duty being one-half cent a pound. The cost of producing wine from them is small. Allowing a fair profit above the cost of production, it can be sold at 16 cents a gallon. This wine, the report says, "is perfectly wholesome, possessing many of the properties of the wine made from the juice of the fresh grape, and to be infinitely preferable to the mixtures, most of them very deleterious, sold as genuine wine."

This wine is not only made to sell, but it is made by the housewife, and for this reason the consumption of it has greatly increased. It can be made at a small cost. This new wine has opened the door for an increased consumption of the small grape grown in the great archipelago, and might induce the Ionians to make wine themselves. Already Cyprus is exporting wine to France, and the industry may spread along the southeast of Europe. One thing is sure, it will prevent this market being overloaded with currants and raisins, and it will give our raisin producers an opportunity to obtain a fair price for their product.

AGENCY OF

WM. T. COLEMAN & CO.

91 MICHIGAN AVENUE, CHICAGO.

California Products a Specialty.

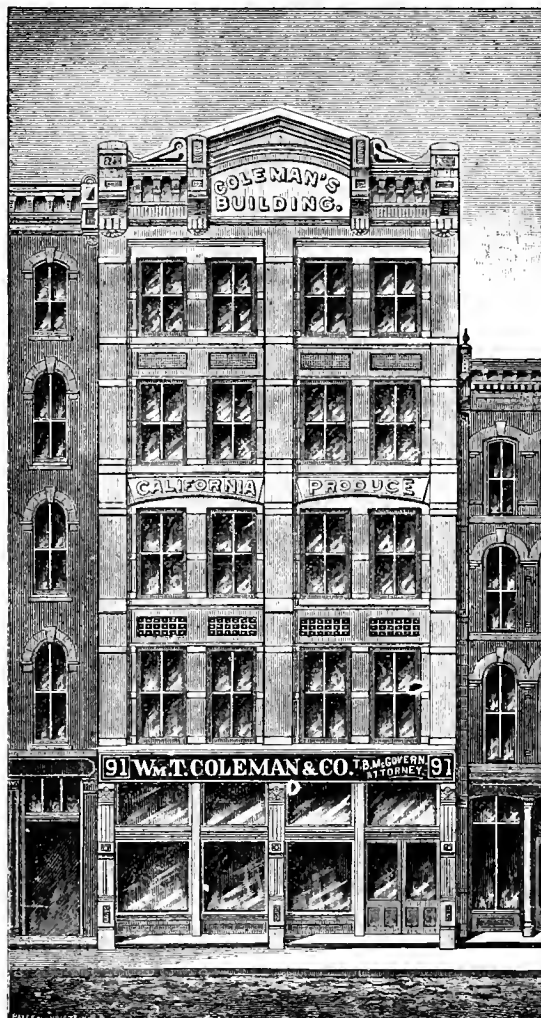
California
Canned
Fruits,

California
Dried
Fruits,

California
Raisins,

California
Wines,

California
Oranges!

**COLUMBIA AND SACRAMENTO RIVER SALMON,**

—AND ALL—

Pacific Coast Products Suited to Eastern Trade.

CONSIGNMENTS SOLICITED, AND ALL CORRESPONDENCE

PROMPTLY ATTENDED TO.

T. B. McGOVERN, Manager.

EGGS FULL OF WHISKY.

How the Prohibition States get their Liquor.

Very distinct trails of the serpent that biteth like an adder have been observed in Maine, Rhode Island and other States where prohibitory laws are supposed to be in force, and the people who believe in no rum except for medicinal and mechanical purposes have wondered how the bad stuff came there, when so many paid officials are on hand to prevent it. In Maine it is a criminal offence to sell anything harder than soda water, yet drunken men are seen on the streets of the larger towns every day, and the local Judges are kept busy for finding people for being intoxicated. The same results are noticed in Rhode Island, only to a larger degree. All these symptoms lead a philosophical mind to ask:

"WHERE DO THEY GET THEIR LIQUOR?"

The boats, cars, stages and express companies are all watched, and everything suspicious is overhauled and inspected daily. Where does the liquor come from?"

It comes from many sources. There are many holes in the legal skimmer, and every one leaks a little. In the first place a great deal of liquor, particularly beer and ale, is shipped in barrels to grocers and marked "Bermuda onions" or "Cincinnati hams" or something of that kind. Then there are plenty of coasters that come to Boston loaded with lumber and go back to Maine with a good supply of warming fluids stored away in sly places, and delivered to those who want it in boats that land on the river banks at the side of lonely woodland roads, and turn over their freight to

INNOCENT LOOKING FARMERS

with faces as guileless as cherubs. Every move of the prohibitionists has been met by a counter move by the men who want their toddy, and in spite of heavy fines and imprisonment, of constitutional amendments and moral suasion, the man who wants his morning cocktail can get it in any State in the Union, provided he wants it bad enough.

There is a little back office on Congress street near Franklin street that looks very much like a small grocery store kept by a neat old maid. On the counter is a pair of scales, a show case, brown paper, thread and the fixings of a country store. On the shelves against the wall are red tin boxes full of tea, and jars and bottles innumerable. In front of the counter on the floor is a large wooden egg-case, capable of holding forty-nine dozens when full, while near

by is a small paste-board box partitioned off into twelve compartments in every one of which lies

A BIG EGG,

white and clean as chalk. In fact, they are so very white that a man would at once suspect them of being nest eggs, such as unskilled pullets use for patterns when they begin to lay.

"There are some there," said the proprietor, pointing to the box, "that are as fresh as any in the city. I'll warrant them every time."

"How much are they a dozen?"

"One dollar. Don't be in a hurry," continued the proprietor with a smile. "Just take one of these and tap it, and if you say you ever saw such eggs before, I'll buy you a dozen at any market in Boston." Saying this he took up an egg, loosened the wax that adhered to the small end, drew out a plug, inserted a straw, pushed it over the counter, and said:

"Now she's already, suck away."

The artist complied, and instead of tasting egg, he found his tongue assailed by first-class sherry. The egg was no egg at all, but just a glass shell

FILLED WITH WINE

and stopped up. "It is one of my ideas," remarked the grocer. "I got it up to sell in Maine and other places where such stuff is forbidden. The eggs hold two-thirds of a gill, or two-thirds of a common whisky glass; so, you see, one will furnish a good, square drink to any man who isn't a hog."

"The eggs are made of common glass. At first I put on cemented cloth, but that leaked, and I had to plug the hole with wood and cover it with white wax. That works first rate."

"As yet I have filled them with but three kinds of liquor—whisky, sherry and claret, but I am going to make brandy eggs soon. I sell my

EGGS FOR ONE DOLLAR A DOZEN,

and they retail for fifteen cents each, though I shall have to ask a little more for those that have brandy. I studied up the idea about a month ago, and have applied for a patent on it which I think I shall get."

"How many have you sold?"

"Oh, I haven't pushed them much on account of not getting glass eggs fast enough. I have sold about 600 dozen in Maine, and have about as many more ready to ship. As for Rhode Island, I haven't tried that market any to speak of. I find my eggs sell very well right here. People want them as curiosities. If a man is on a train he can just reach down in his grip-sack, take out an egg in his handkerchief, put in his straw, and pull away without attracting notice. Drummers who have used my eggs say it is much better than to drink out of a bottle. It don't draw any attention."

—Boston Globe.

A Cure for Mousiness.

When a wine shows symptoms of going wrong, the average merchant in this country resigns himself to the loss, or sells the wine to the nearest manufacturer of vinegar. There are, nevertheless, frequent occasions when valuable property may be saved by prompt attention; and one of these has recently come under our notice. The Kneochyle Company, of 9 Farringdon road, E. C., London, has invented a cure for mousiness, which acts in a surprising manner, and which, from personal observation, has proved to be efficacious. A cask of wine, distinctly "mousy," possessing that inky-odorinous aroma which indicates trouble, although not yet acetous, was spiled, and the portion drawn off was put aside in a bottle. The remaining contents of the cask were then treated with "Baiff Boro-Glyceride," the special preparation of the company before alluded to, and the cask was allowed to rest three weeks, just as if under finings. At the expiration of that period, a sample was taken, and the two wines, the impaired and the renovated, were offered for comparison. The difference between them was striking. The mushroom-like smell of mousiness had completely departed, and the wine was once more presentable.

L. LANDSBERGER,

HENRY M. LANDSBERGER

Landsberger & Son,

Commission Merchants,

123 CALIFORNIA STREET.

SAN FRANCISCO

Agents for the Purchase and Sale of Viticultural Products and Vintners Supplies.

CALIFORNIA Concentrated GRAPE MUSTS

FOR THE SEASON OF 1886 I WILL CONCENTRATE must of grapes from the celebrated Napa Valley.

THOS. D. CONE.

Manufacturer of California Concentrated Grape Musts

OFFICE—640 CLAY ST., (Up-stairs), San Francisco, Cal

Works at Homestead, near Sacramento, Cal.

CALIFORNIA VINEYARDS.

KRUG CHARLES.
Krug Station, St. Helena, Napa Co., Cal.
Producer of fine Wines and Brandies.

J. C. WEINBERGER. Manufacturer of Wines, near St. Helena

W. C. RABE. Wine Cellar and Distillery, Oakville, Napa County.

SAN FRANCISCO WINERY, RUEFF & REH.
Wine Proprietors, 116 & Eighth St., S. F., Cal.

PAUL O. BURNS WINE CO.

Proprietors

YERBA BUENA VINEYARD.

Distillers of GRAPE BRANDY.

Fine old Mountain, Burgundy, Zinfandel, Riesling, Gutedel, etc., in cases or bulk.

Branch Cellars in San Jose, Cal., U. S. A. P. O. San Jose, Cal.

WM. T. COLEMAN & CO., SAN FRANCISCO,
Sole Agents for Chicago and New York

ESTABLISHED IN 1860.

ALL WINE MAKERS

Should drink the

PURE BELMONT

— HAND-MADE —

SOUR MASH WHISKY.

Supplied in lots to suit by

JAMES GIBB, 617 Merchant St.

HERRMANN & CO., HOP MERCHANTS.

Importers and Dealers in

CORKS, BREWERS' AND BOTTLERS' SUPPLIES,
SODA WATER AND WINE DEALERS' MATERIALS

ALEX. FRIES' & BROS. COGNAC OILS, ESSENCES AND FLAVORS.

313 SACRAMENTO ST. San Francisco.

THE RISDON IRON AND LOCOMOTIVE WORKS.

Cor. Beale & Howard Sts., S. F.

W. H. TAYLOR, Pres't. JOSEPH MOORE, Supt.

BUILDERS OF STEAM MACHINERY
IN ALL ITS BRANCHES.

Steamboat, Steamship, Land Engines
and BOILERS, High Pressure or Compound.

STEAM VESSELS of all kinds built complete, with Hulls of Wood, Iron or Composite.
STEAM BOILERS. Particular attention given to the quality of the material and workmanship, and none but first class work produced.

SUGAR MILLS AND SUGAR-MAKING MACHINERY made after the most approved plans. Also, all Boiler Iron Work connected therewith, PUMPS. Direct Acting Pumps, for irrigation or City Water Works purposes, built with the celebrated Davy Valve Motion, superior to any other Pump.

BOX

BRANDS A SPECIALTY.

BRUSHES

— AND —

All Kinds of

INKS

FOR SALE.

22 County Orders Promptly Filled

Graham Paper Co.

OF ST. LOUIS

W. G. Richardson

PACIFIC COAST MANAGER,

No. 529 Commercial St.,

SAN FRANCISCO, CALIFORNIA

TELEPHONE No. 1064.



OUR NATIVE WINE SHIPMENTS BY SEA.

PER P. M. S. S. CO'S STEAMER STARBUCK, SEPTEMBER 8, 1886.

TO NEW YORK.

MARKS	SHIPPERS.	PACKAGES AND CONTENTS.	GALLONS	VALUE
S & Co.	C Carpy & Co.	50 barrels Wine	2,458	\$900
H E S.	A Gherini	2 barrels Wine	100	65
E L.	A Bruni & Co.	25 barrels Wine	1,250	500
P Kaiser, Syracuse	Walter, Schilling & Co.	3 barrels Wine	250	150
W H Haeccker	"	3 octaves Wine	82	75
Brooklyn	"	1 case Brandy		12
C. B. in diamond, New York	Kohler & Van Bergen	25 barrels Wine	1,223	610
D. in diamond, Philadelphia	"	3 barrels Wine	134	80
S L & Co., Philadelphia	"	4 barrels Wine	196	110
C L, Philadelphia	"	5 octaves Brandy	122	260
J M, Philadelphia	"	8 casks Wine	521	340
G & B C, Cincinnati	"	1 barrel Wine	48	30
K B & H, Cincinnati	"	1 barrel Brandy	47	105
N B, Cincinnati	"	5 barrels Wine	247	145
"	"	5 barrels Wine	240	130
"	"	5 barrels Wine		
"	"	1 octave Wine	271	170
A Py, New York	Lenormand Bros.	20 barrels Wine	929	325
M. in diamond, New York	"	1 cask Wine	64	42
Total amount of Wine			8,023	\$3,672
Total amount of Brandy, 1 case and			169	37

TO CENTRAL AMERICA.

W V, Guatemala	Lachman & Jacob	3 cases Brandy		\$21
N M, La Libertad	Uruela & Urioste	4 cases Wine	10	23
"	"	1 barrel Wine	20	20
"	"	1 barrel Whiskey	20 1/2	60
"	"	8 cases Whiskey		360
S & Co, San Jose de Guatemala	Schwartz Bros.	20 packages Whiskey		360
M B, Punta Arenas	Eugene de Sabla & Co	5 kegs Wine	60	50
J M S, San Jose de Guatemala	"	50 cases Wine	250	190
Total amount of Wine			340	\$284
Total amount of Brandy, 3 cases				21
Total amount of Whiskey, 20 packages, 8 cases and			20 1/2	491

TO NEW YORK—PER SHIP JAEZ HOWER, SEPTEMBER 7.

E A H.	Arpad Haraszthy & Co	1 barrel Wine	50	\$20
A D.	Kittle & Co.	14 packages Wine	197	79
"	"	20 casks Brandy	60	120
C H R & Co.	R V Day	20 casks Wine		
E C F.	"	3 casks Wine		
C N.	"	1 cask Wine	1,630	654
L V.	"	1 cask Wine		
J D N.	Hanley & Snow	3 cases Wine	15	6
Total amount of Wine			1,898	\$759
Total amount of Brandy			60	120

MISCELLANEOUS SHIPMENTS.

DESTINATION.	VESSEL.	RIG	GALLONS	VALUE.
Victoria	Sardonyx	Steamer	100	\$100
Tahiti	Tahiti	Brig	50	50
Honolulu	Forest Queen	Brig	10	10
Honolulu	Consuelo	Brig	90	22
Mexico	City of Pekepa	Brig	3,140	1,714
Victoria	Queen of the Pacific	Steamer	68	25
Japan	City of Sydney	Steamer	48	29
Victoria	Mexico	Steamer	46	12
Total			3,552	\$1,962

TO NEW YORK—PER STEAMER GRANADA, SEPTEMBER 15.

E. in diamond, New York	Williams, Dimond & Co	2 barrels Wine	85	\$50
L A, New York	Walter, Schilling & Co	3 barrels Wine	150	112
"	"	6 octaves Wine	164	123
"	"	8 cases Wine		24
F C & Co, New York	Lenormand Bros	15 barrels Wine	693	242
A V, New York	Lachman & Jacob	15 barrels Wine	745	308
A. in diamond, New York	"	25 barrels Wine	1,255	512
Triangle, New York	"	10 barrels Wine	494	264
P A, New York	"	50 barrels Wine	2,520	854
H S, New York	"	50 barrels Wine	2,515	852
M & B B, New Jersey	"	12 barrels Wine	101	90
"	"	1 barrel Brandy	47	99
Total amount of Wine, 6 cases and			8,722	\$3,635
Total amount of Brandy			47	99

TO CENTRAL AMERICA.

A Z, Corinto	Cabrera, Roma & Co.	1 barrel Wine	42	\$40
J E, Amapala	John T Wright	9 cases Wine	45	35
E T, Amapala	"	12 kegs Wine	130	120
E B, La Union	B Dreyfus & Co.	15 barrels Wine	745	308
J P L, Corinto	J W Grace & Co.	12 cases Wine	36	75
C P, La Union	Montcalre & Co.	2 cases Wine	28	22
L P, Corinto	Eugene de Sabla & Co	2 cases Wine	33	35
H D, Amapala	"	4 cases Wine	67	56
V C, San Juan del Sur	"	10 cases Wine	50	37
F N & Co, Corinto	Hellman Bros & Co	9 barrels Wine	275	166
Total amount of Wine			1,422	\$1,188

TO MEXICO.

M & S, Mazatlan	W Loaiza	1 barrel Wine	47	\$34
C T, San Benito	"	10 barrels Wine	269	162
"	"	3 barrels Wine	79	48
M E, Mazatlan	Dellipiane & Co	1 barrel Wine	27	10
"	"	10 cases Wine	50	50
"	"	4 cases Whiskey	28	28
"	"	1 keg Whiskey	10	25
S & Co, Mazatlan	Thannhauser & Co.	1 box Wine		36
Total amount of Wine, 1 box and			472	\$343
Total amount of Whiskey, 4 cases and			10	53

TO PANAMA.

A H, Panama	J L F Lastreto	15 barrels Wine	252	\$115
Total shipments by Panama steamers			19,231 gallons	\$9,237
Total shipments by other sea routes			5,450 "	2,721
Grand totals			24,681	\$11,958

WINE MAKING.

(New York Wine and Fruit Grower.)

Several inquiries have been made for specific directions for making wine.

Wine making is a kind of manufacturing operation which requires in the first place the proper materials, such as fully ripe grapes, suitable rollers, a press, tubs and casks, also a deep, cool cellar for the proper keeping of the wine; and next it requires skill and judgment in knowing how to properly attend to the wine during the process of fermentation. In wine countries the manufacture of wine is a distinct business. The grape-growers sell the grapes, or the expressed juice, to the wine-maker, and the custom is becoming generally adopted with us, especially if there is a wine establishment in the vicinity. Where there is no wine-maker near, good wine can be made at home by carefully picking off all defective and unripe berries, mashing the grapes, pressing out the juice, and then let it ferment, bearing in mind that during the whole process the grape-juice must not come in contact with iron or steel, and that it must be kept from exposure to the air.

Some persons fill the vessel full and keep it filled to overflowing during the fermentation, so as to throw off the scum and impurities. For this purpose a few gallons of juice is kept in a demijohn. As soon as the fermentation has ceased, the vessel is to be stopped tight. During the fermentation the best drink is to be obtained. The juice is filled with sparkling gas, but has not quite reached the alcoholic stage by which it is turned into wine. In this fermenting stage the juice is sweet and rich, with a sharp, prickling taste peculiar to sparkling wine, but there is in it no alcoholic strength. The annexed extracts on this subject are taken from an excellent article written for the Kentucky Horticultural Society in 1879, by Mr. C. S. Jackson of Danville, Ky., who is a successful grape grower and wine maker, and a gentleman of high standing in his district. Mr. Jackson's out-line is necessarily brief. He says:

"The method here mentioned may be applied generally to grapes of almost any species or kinds, whilst fancy for any particular wine may vary in treatment of the vintage, from immediate cellaring of the drippings of the mashed grapes to prolonged fermentation on the skins.

"In wine making the ultimate result is greatly dependent upon the material used. Too great care cannot be given to the production of grapes of perfect quality. In fact, to undertake to produce a real good wine without choice and thoroughly ripened grapes, would be more difficult than to make good bread from chess or wild rye.

"The process, although apparently simple, requires the utmost attention at all times, and the exercise of great neatness throughout the handling of both grapes and wine; seeing that no vessel used therein is at any time allowed to become either mouldy or sour; and especially a thorough examination should be made of each cask which is to contain the 'must,' and unless entirely free from all traces of mouldiness or acetic acid, should in all cases be rejected.

"As the gathering of the grapes properly belongs to wine making, we mention the method to be pursued in that department first.

"The vintager, about the time his grapes have arrived at the high st period of coloring, can then from day to day make tests of the juice, finding out, by this means only, when the highest state of maturity is reached. This can be determined by specific gravity of the juice, showing amount of saccharine matter contained; and when found upon examination that no farther improvement is made in gain of saccharine, and disappearance of acids, it may then be known that the proper time for the vintage has arrived.

"All arrangements for the pressing and cellaring of the 'must,' should be perfected before the vintage begins, in order that no delay may be caused during the harvest, as unevenness of climate just at that particular period may give rise to losses from decay of fruit (fermentation in the skin) unless gathered and pressed in due season.

"In gathering the grapes, careful hands only should be allowed to do the work, cutting the clusters from the vine, with but little stem left to the bunch, and picking out at the time the bunch is in hand, all defective or unripe berries. Lay the grapes carefully in baskets, or whatever vessels convenience has afforded for the vintager to use. Now these gathered grapes should be taken to the crusher within the day gathered, and run through, allowing them to stand in the 'mash-tubs' or open vats until oxidized, which time may vary with the temperature of the atmosphere just at the vintage; if cool weather, a little longer time may be allowed than if warm. At any rate, a few hours will suffice, provided the mashed grapes are kept occasionally stirred up from the bottom of the vats to the surface. For this purpose wooden forks may be used, as no metal should come in contact with either grapes or wine at any time, from the crushing of the grapes to the maturity of the wine.

"The grape-mill consists simply of wooden rollers set in frame-work, so arranged by wheels attached as to turn in opposite directions, and set just wide enough apart to carry the grapes through, breaking the skins without mashing either seeds or stems.

"From the vats containing the mashed grapes, the juice and pomace together are transferred into the presses, these being of sufficient capacity to correspond with extent of the vintage, so the work of extracting the juice may be effected before the time of fermentation, arrangements being made for the juice to run directly from the presses into the casks already cellared.

"The casks are not quite filled full at first, as by expansion of the must during the first fermentation there will be loss from running over. To fill at this period about four-fifths capacity of the cask, is sufficient to prevent wastage.

"Now all is left quiet for nature's assimilation to produce a perfect wine, as where grapes are grown of proper quality and maturity, properties are contained which will make an excellent wine without addition of foreign elements.

"After or about the close of this first fermentation, the casks are then filled up to the top, allowing no space for atmospheric influence; and in this shape all is left, the cooper seeing from time to time that ullage from evaporation, etc., is replaced with wine of the same kind and quality of each cask until ripened. During this first fermentation, caps for the outlet of carbonic acid gas are fixed tightly into the bungs of the casks, so arranged that air-tubes crook

Sept. 24, 1886

over into some vessel of water provided for the purpose, thereby allowing escape of gas through the water without the wine in the cask ever coming in contact with the outside atmosphere. This method gives greater safety also from escape by evaporation of the fragrant volatile oils and spirit of wine, saving for the wine its rich, fruity aroma and body for age.

"In three or four months after the vintage, the wine will become perfectly clear. At this period it is racked off from the lees, and the casks thoroughly washed out, replacing the clear wine again, leaving the casks entirely full and closed air-tight. About the time for the blossoming of the vine in the Spring, the second fermentation will set in, and attention is again needed through this period, the cooper seeing to the escape of gas without risk from bursting the casks.

"Throughout this stage of fermentation, which may continue mildly for six or eight weeks, the bungs must be kept loose in the casks by linen coverings of sufficient thickness to allow the escape of gas; or again, these bungs with tubes, the same as used for the first fermentation, may be inserted with the end in a vessel of water; better still it is to use the long bung with spring and rubber, a safety-valve which will allow the escape of gas without endangering the wine from contact of external atmosphere.

"The second fermentation being finished before the succeeding vintage, we now begin to taste a little, and always remember to keep full (the casks) until mellowed by age.

"The wine-cellar should be kept neat at all times, and free from all mould or foreign odor of any kind. It should be of sufficient depth to sustain an even cool temperature, and be protected by good drainage.

"In suitable soils and in good seasons, with the best varieties of grapes, here in our State can be produced a wine of excellence, equaling in every particular the choicest growths of the Old World, proving always to be not only a delicious beverage, but the promoter of temperance and civilization—such wine as may be drank with perfect safety to our health, adding activity to our habits and length to our days."

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

THE

LOMA PRIETA LUMBER CO.
SUCCESSORS TO

WATSONVILLE M. & L. CO.

HAVE ON HAND A FULL SUPPLY OF THE following size

GRAPE STAKES,

2X2-4 FEET LONG.
2X2-5 FEET LONG,
2X2-6 FEET LONG.

Which will be sold at reasonable rates.

Address all communications to

LOMA PRIETA LUMBER CO.,
WATSONVILLE,

Santa Cruz County, Cal.

JAMES HUNTER
GAUGER OF WINES AND SPIRITS.
(Established 1851.)
OFFICE—323 FRONT STREET.
San Francisco.



ARE YOU USING
WELLINGTON'S
IMPROVED EGG FOOD
For Poultry?
IF NOT, WHY NOT?

EVERY GROCER, DRUGGIST AND MERCHANT SELLS THIS EGG FOOD

HARD TIMES MADE EASY.
Are you using Wellington's Improved Egg Food for poultry? If not, why not?

EX. ELSTOR HOT WATER INCUBATOR.
No lamp No oil No expense to run. No watching Best in the world.

ECC TESTE Testing six at a time. Quicker and better than one by any other process.
Seeds of Every Variety.

B. F. WELLINGTON,
425 WASHINGTON ST., San Francisco, Cal.

BOSTON BELTING CO.
GODD ROSE A SPECIALTY.

J. W. CIRVIN & CO.,
24 CALIFORNIA STREET, S. F.

FRAZER AXLE GREASE
BEST IN THE WORLD
The bearing qualities are unsurpassed, actually outlasting two boxes of any other brand. Free from Animal Oils. GET THE GENUINE.
FOR SALE BY
CALIFORNIA MERCHANTS
and Dealers generally.



A. 1876 S. I. XII.
I. S. 1888 G.
The Industrious never Sinks.

CROSSE & CARDNER,
BROKERS IN REAL ESTATE.
Ranches, Residence, Business and Manufacturing Property Bought and Sold on Commission.
And Publishers of "Sonoma County Land Register and Santa Rosa Business Directory."
OFFICE, No. 312 B ST., SANTA ROSA, CAL.

E. L. G. STEELE & CO.,

SUCCESSORS TO

C. ADOLPHE LOW & CO.,
COMMISSION MERCHANTS.

Agents American Sugar Refinery and Washington Salmon Cannery.

ANGLO-NEVADA
Assurance Corporation

—OF—

SAN FRANCISCO, CAL.
FIRE and MARINE.

Subscribed Capital \$2,000,000.
OFFICE: 410 PINE ST.

DIRECTORS:

LOUIS SLOSS, J. W. MACKAY,
J. B. HAGGIN, W. F. WHITTIER,
J. ROSENFELD, E. E. EYRE,
J. L. FLOOD, E. L. GRIFFITH,
G. L. BRANDER, J. GREENBAUM,
W. H. DIMOND.

This Corporation is now prepared to receive applications for Fire and Marine Insurance

G. L. BRANDER.....President
J. L. FLOOD.....Vice-President
C. P. FARNFIELD.....Secretary
J. S. ANGUS.....Assistant Manager

Bankers, The Nevada Bank of San Francisco

E. C. HUGHES PRINTER
511 Sansome St., S. F.

THE
WINE PRESS AND THE
CELLAR,

By E. H. RINFOR.

A MANUAL FOR THE WINE MAKER AND THE CELLAR MAN

PRICE, \$1.50.

For sale by

"THE SAN FRANCISCO MERCHANT."

CHOICE
OLD WHISKIES

PURE AND UNADULTERATED.

We Offer for sale on Favorable Terms to the Trade,

CATHERWOOD'S

Celebrated Fine Old Whiskies,

OF THE FOLLOWING BRANDS, NAMELY:

"CRANSTON CABINET"
"A.A.A." "CENTURY"
"OLD STOCK"
"HENRY BULL"
"DOUBLE B"
"MONOGRAM"

VERY OLD AND CHOICE, IN CASES OF ONE DOZEN QUART BOTTLES EACH.

"BRUNSWICK CLUB" Pure Old Rye, And "UPPER TEN."

For Excellence, Purity and Evenness of Quality the above are unsurpassed by any Whiskies imported. The only objection ever made to them by the manipulating dealer being that they cannot be improved upon.

Dickson, De Wolf & Co.

SOLE AGENTS,

SAN FRANCISCO, CAL.

J. N. KNOWLES, MANAGER.

EDWIN L. GRIFFITH, SECRETARY.

ARCTIC OIL WORKS.

MANUFACTURERS OF

Sperm Whale, Elephant and Fish Oils, Skid Grease,

WHALE OIL SOAP.

ESPECIALLY ADAPTED FOR VINEYARDS AND FRUIT ORCHARDS.

OFFICE—28 CALIFORNIA STREET, S. F., CAL.

W. T. Y. SCHENCK,

Sole Agent, Pacific Coast,

"Eureka," "Paragon," "Red Cross" & "Mill"

Brands of

COTTON RUBBER LINED FIRE AND GARDEN HOSE.

Also RUBBER HOSE of Extra Fine Quality. Hose Carts, H. & L. Trucks, Fire Engines and Fire Dept. Supplies generally. Manufacturer of the Celebrated Square Flax Packing, the Best in the world for all Hydraulic purposes.

No 256 Market St., San Francisco.

THE
WINE & FRUIT GROWER.

B. F. CLAYTON,
EDITOR AND PUBLISHER
24 PARK PLACE, NEW YORK.

SUBSCRIPTION TERMS

(Payable in Advance.)

ONE YEAR (Free of Postage)..... \$1 00
SIX MONTHS..... 50
SINGLE COPIES..... 10
EUROPEAN COUNTRIES..... 1 50

Subscriptions and advertisements received at the office of the "Merchant."

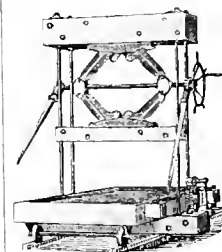
WORTH'S IMPROVED

PATENT

COMBINED TOGGLE LEVER

—AND—

SCREW PRESS.



I desire to call the attention of wine and cider makers to my Improved Press. With this Press the movement of the follower is fast at the commencement, moving one and a half inches with one turn of the screw. The last turn of the screw moves the follower one-sixteenth of an inch. The follower has an up and down movement of 2 1/2 inches, with the double platform run on a railroad track. You can have two corks, by which you can fill one while the other is under the Press, thereby doing double the amount of work of any other press in the market. Model on exhibition at the offices of the Board of State Viticultural Commissioners. Also manufacture Horse Powers for all purposes. Finishing Cutters, Plum Filters, Worth's System of Heating Bottles by hot water circulation. Send for circular.

W. H. WORTH,

Petaluma Foundry and Machine Works,
Petaluma, Sonoma Co., Cal.

Testimonials from I. DeTurk, Santa Rosa; J. E. J. Portal, San Jose; Ely T. Sheppard, Glen Ellen; Kate F. Wardfield, Glen Ellen; J. H. Drummond, Glen Ellen; Joseph Walker, Windsor; John Finkelman, Fulton; Wm. Pfeiffer, Guleserville; J. & F. Muller, Windsor; R. C. Still, Guleserville; Lay Clark & Co., Santa Rosa; Vackey Freres, Old San Bernardino; J. F. Frank, William Allen, San Gabriel; James Finlayson, R. & J. J. Cobb, Healdsburg; W. Metzger, Walter Phillips, Santa Rosa; J. Lawrence Watson, Glen Ellen; Geo. West, Stockton, can be had by applying for printed circulars.

COUTURE.

(H. D. Combe in the Santa Clara Valley.)

The cause of *couture* is a subject of such importance to the viticultural interest, that it is occupying the minds of many at the present time. If it could be proven that this loss to the grape crops occurs only in consequence of some peculiar conditions of weather, we might with good grace abandon the study of its origin, and leave the matter of prevention to the kindness of Providence. But if on the contrary *couture* in grapes occurs as a direct result of some false theory of cultivation or pruning, or from negligence, the matter should be systematically investigated and conclusions reached that could be put before the vine growers to enable them to avoid such unprofitable mishaps. We cannot say, for this valley at least, that the loss in the crops of grapes by *couture* is such as to be considered a serious loss, but the fact is evident, that the increase of production for this season will be much less than it could have been. We hear it said that young vines are always subject to it, true enough, but it seems that a little more watchful care would result in great benefit. The most direct cause of *couture* that we have observed so far is the insufficiency of wood left at pruning time, in comparison with the abundant rain of the past season. Anyone wishing to prove this matter can do so by comparing different vines, some with a good crop of grapes with others of same age and variety and few grapes. It will at once be found that

the vine having fewer branches has fewer bunches and vice versa. This is especially noticeable in the case of vines that have lost some branches by accident or carelessness in the early part of the season; the grapes that were on the remaining healthy canes, have not prospered; evidently the excessive flow of ascending sap caused the mischief.

It would be in order now for some scientific man to explain how an excessive ascending sap produces such an effect. Knowing this to be the cause we are more interested in the finding of a remedy than in a solution of the mystery. After several years of observation we have concluded that we do not in most cases give enough credit to the soil for the elements it possesses, and our constant advice has been to be rather generous at pruning time, leaving an abundance of buds to give exit to the sap. This course will prevent that exuberant growth of young wood that often becomes the prey of high winds, and a judicious suckering in May, even with shears, will enable us to regulate the quantity of grapes that may be fully matured by the vine. A carefully executed summer pruning about blooming time has been found a preventive in some cases. What induces us to believe that the *couture* of this year is due essentially to the above cause, is that it occurred very irregularly and among a number of varieties, both on long and short pruning. Excessive pruning and suckering caused many vines to grow so rank in the beginning of the season, as to

compel the owners to summer prune before the bloom to prevent the vines from being destroyed by the wind. This practice is certainly wrong, as it causes a second crop to start on the vines before the first has properly set. It follows then that a little more study and close examination on the part of vine growers may enable them to calculate with more exactitude the strength and capability of their vines, especially in strong soils and give them better returns for their labors. Evidently much of the trouble has been caused by allowing pruners fresh from Europe to have their way, in considering the age of the vines and not their size.

An old vine grower of extensive practice in Europe and California stated to us that he saw the necessity for a different policy in pruning some 12 or 15 years ago and though often accused of foolishness, had succeeded in obtaining large yields without impairing in the least the vigor of the vines. We saw many vines on his premises that would average 100 lbs. of grapes five years ago and could do as well now. There is no cogent reason why our vines should not yield as much as similar ones do in other localities.

The Report of the Fourth Annual State Viticultural Convention is now published and ready for delivery. Single copies are one dollar each, but special rates can be obtained for five copies or more.

R.H. McDonald, S.G. Murphy,
— PRESIDENT — CASHIER
R.H. McDonald Jr.
VICE-PRES.
PACIFIC BANK
Oldest Chartered
Commercial Bank
on the Pacific Coast.
Capital \$1,000,000.00.
Surplus \$500,000.00.
San Francisco, Cal.

July 1st, 1886.

We respectfully invite attention to the statement herewith presented, and beg to say we are pleased with our achievements during the first half of the present year.

It is gratifying to us, also, to state that the results attained are satisfactory to our stockholders. We hope our success will receive the favorable regard of our patrons and friends whose business relations have been conducted to enable us to make so commendable an exhibit as the following:

ASSETS:

Bank Premises	.....	\$150,000 00
Other Real Estate	.....	35,556 27
Land Association, Gas and	.....
Bank Stocks	.....	31,304 65
Loans and Discounts	.....	2,378,383 15
Due from Banks	.....	339,502 11
Money on Hand	.....	481,805 78
* Total		\$3,416,551 96

LIABILITIES:

Capital, paid up	.....	\$1,000,000 00
Surplus Fund	.....	500,000 00
Undivided Profits	.....	23,318 71
Due Depositors	.....	1,741,973 35
Due Banks	.....	151,259 90
		3,416,551 96

While returning thanks to our friends for the very liberal patronage during the past, a continuance of their favors is respectfully requested.

The regular semi-annual dividend has been declared and a balance of accumulation placed to account of undivided profits.

R. H. McDONALD, President.

SULPHUR! SULPHUR! SULPHUR!

FOR SALE IN

QUANTITIES TO SUIT.

WM. CLUFF & CO.,

WHOLESALE GROCERS,

16, 18, 20 and 22 Front St., Cor. Pine, S. F.

JOHN A. ROEBLING'S SONS CO.
WIRE ROPE
GALVANIZED SHIP RIGGING, MINING, TILLER,
ELEVATOR, TINNED & COPPER ROPE, SASH CORDS.
LARGEST WIRE ROPE WORKS IN THE WORLD.
IRON & STEEL WIRE OF EVERY KIND.
TELEGRAPH WIRE, HARD & SOFT COPPER WIRE
INSULATED FOR ELECTRIC USE.
SWEDISH IRON WIRE. CRUCIBLE STEEL WIRE.
TRENTON, N. J. & 14 DRUMM ST. SAN FRANCISCO, CAL.

THE AMERICAN SUGAR REFINERY COMPANY,

MANUFACTURERS OF THE

CELEBRATED CUBE SUGAR,

Supplies Only Exporters and the Jobbing Trade.

This Company manufactures all the Grades of HARD and COFFEE SUGARS and SYRUPS. Special attention given to the making and Packing of Loaf Sugar for Export.

208 CALIFORNIA STREET,

SAN FRANCISCO, CAL.

E. L. G. STEELE,
President.

Dr. MINTIE

THE SPECIALIST,
No. 11 KEARNY ST., San Francisco.

Treats all Chronic, Special and Private Diseases with Wonderful Success.

THE GREAT ENGLISH REMEDY



Is a never-failing cure for NERVOUS DEBILITY, EXHAUSTED VITALITY, SEMINAL WEAKNESS, SPERMATORRHOEA, PROSTATITIS, IMPOTENCY, Paralysis and all the terrible effects of self-abuse, youthful follies and excesses in married years, such as loss of Memory, Lassitude, Nocturnal Emissions, Aversions to Society, Dimness of Vision, Noises in the Head, excess in drinking intoxicating liquors, the vital fluid passing unobserved in the urine, and other diseases that lead to insanity and death.

Dr. Mintie who is a Regular Physician Graduate of the University of Pennsylvania, who will agree to forfeit \$500 for a case of this kind the **Vital Restorative**, (under his special advice and treatment) will not cure, or for anything impure or injurious found in it. **Dr. Mintie** treats all PRIVATE DISEASES SUCCESSFULLY WITHOUT MERCURY. **Consultation Free**, Thorough examination and advice, including analysis of urine, \$5. **Price of Vital Restorative**, \$1.50 a bottle or four times the quantity, \$5; sent to any address upon receipt of price, or C. O. D., secure from observation, and in private name if desired, by **Dr. A. E. Mintie**, 11 Kearny street, San Francisco, Cal.

Send for pamphlet and list of questions.

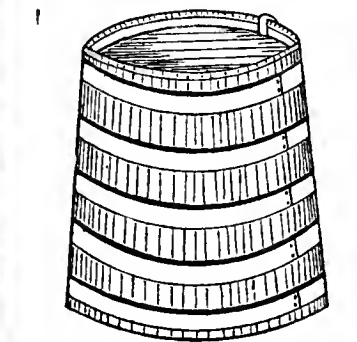
SAMPLE BOTTLE FREE.

Will be sent to any one applying by letter stating symptoms, sex and age. Strict Secrecy in regard to all business transactions.

DR. MINTIE'S KIDNEY REMEDY NEPHRETICUM, cures all kinds of Kidney and Bladder Complaints, Gonorrhoea, Gleet, Leucorrhoea, etc. For sale by all Druggists; \$1 a bottle, 6 bottles for \$5.

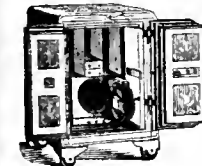
DR. MINTIE'S DANDELION PILLS are the best and cheapest **DYSPEPSIA** and **BILIOUS** cure in the market. For sale by all Druggists.

REDWOOD TANKS



F. KORBEL & BROS.
727 BRYANT ST., S. F.,
Or at NORTH FORK MILL, Humboldt Co., Cal.

FIRE-PROOF SAFES ALL SIZES.



CHAS. WALTZ,
11 Drumm Street,
San Francisco, Cal.
Write for prices and information.

RUPTURE RADICALLY CURED by Dr. Pierce's Great Discovery. Thousands of patients cured at their OWN HOMES. No Experiment! It does the Work! **DRS. PIERCE & SON**, 704 Sac'to St., San Francisco, Cal.

THE COOS BAY STAVE & LUMBER CO.

COOPERAGE GOODS!

Especially invite the attention of Wine Men to their unsurpassed facilities for supplying packages from a 5-GALLON KEG TO A 160-GALLON PIPE OR PUNcheon.

Our machinery enables us to execute all orders with promptness and economy. Price List on application.

OFFICE: 323 FRONT STREET,
BRANNAN ST., NEAR EIGHTH.

CLARIFYING AND PRESERVING WINES.

The undersigned having been appointed Sole Agents on the Pacific Coast by Messrs. A. BOAKE & CO. Stratford, Eng., for their renowned

LIQUID ALBUMENS,

See to call the attention of Wine Growers and Wine Merchants to the following articles, the superior merit of which has been confirmed by Silver Medals, the highest awards given at the International Exhibition of Paris 1878, Bordeaux 1882, and Amsterdam 1883, viz:

VR LIQUID ALBUMEN FOR RED WINES,
Claret, Burgundy and Port.

VB LIQUID ALBUMEN FOR WHITE WINES,
Sauternes, Sherry and Madeira, also for distilled liquors; Whisky, Gin, etc., etc.

SS WINE PRESERVER,
For Preserving the Brilliance of the wines.

NC WINE CORRECTOR,
For Correcting the Roughness of Young Wines.

EV WINE RESTORER,
For Restoring Badly Made or Badly Treated, Harsh and Tart Wines.

A trial according to directions will prove the superior qualities of these finings. For sale in quantities to suit by

CHARLES MEINECKE & CO. Sole Agents,
314 SACRAMENTO STREET, SAN FRANCISCO.

WM. T. COLEMAN & CO.,

Commission Merchants.

SAN FRANCISCO, CHICAGO, NEW YORK,
Agency Wm. T. COLEMAN & Co.,
ASTORIA, Or., LONDON.

With Agents and Brokers in every Commercial City of Prominence in the Union.

WE MAKE A SPECIALTY OF HANDLING THE RAISIN CROP OF CALIFORNIA!

And amongst others we are Agents for
Riverside Fruit Company of Riverside, Miss Mary F. Austin of Fresno, McPherson Bros. of Orange, T. C. White of Fresno.

With many other of the Most Prominent Curers of this State.

Our Facilities for Promptly Placing and widely Distributing Their Produce Can be Ascertained from the Above well-known Curers.

We are also Large Handlers of
ORANGES, DRIED FRUITS, HONEY AND BEANS
IN THE EASTERN STATES.

Advances Made when Required, and Full Information of Markets Promptly Given. Address

Wm. T. COLEMAN & Co.

MARKET & MAIN STS., S. F.

"LE MERVEILLEUX"

— THE —
Most Powerful and Cheapest
Wine and Cider Press
YET PRODUCED.

Patented in France, England, Germany, Belgium, Italy, Norway, Sweden, Denmark and the United States.



This press (a French invention) has been used several seasons in the vineyards of France and Germany with great success, and is now introduced to the American public for the first time.

Its advantages are: Rapidity of action and unlimited power. With a single effort 3 or 4 times more power can be obtained than with any other press known at this day. It has also greater capacity than any other press in the market. The Press can be seen in operation, and is for sale, at the factory of F. W. KROGH & Co., 51 Beale St., San Francisco, Cal.

PARE BROS.,
Sole Agents for United States, Fresno, Cal.
Send for Circular

NOW READY.

THE REPORT OF THE

FOURTH ANNUAL STATE

VITICULTURAL CONVENTION.

PRICE, ONE DOLLAR.

OFFICE OF THE SAN FRANCISCO MERCHANT.
E. C. HUGHES & CO.,
Publishers,
511 Sansome Street.

GOODYEAR'S "GOLD SEAL"

Rubber Hose

For Sale by All Dealers.



GOODYEAR RUBBER CO.

R. H. PEASE, JR., AGENTS.
S. M. KUNYON.
577 and 579 Market St., SAN FRANCISCO

DRAIN TILE.



HONOLULU CASTLE & COOKE, SHIPPING AND

COMMISSION MERCHANTS

Honolulu, Hawaiian Islands.

—AGENTS FOR—

THE KOHALA SUGAR CO.,
THE HAIKU SUGAR CO.,
THE PAPAIAKOU SUGAR PLANTATION
THE WAIALUA SUGAR PLANTATION
THE PAIA PLANTATION
A. H. SMITH & CO.,
THE N. E. M. LIFE INSURANCE
CO. BOSTON,
THE UNION INSURANCE CO.
OF SAN FRANCISCO,
THE GEO. F. BLAKE MFG CO.,
STEAM AND VACUUM PUMPS,
D. M. WESTON'S CENTRIFUGAL
MACHINES.

WM. G. IRWIN & CO.

SUGAR FACTORS AND

COMMISSION AGENTS

Honolulu, H. I.

—AGENTS FOR—

HAKALAI PLANTATION.....Hawaii
NAALEHU PLANTATION.....Hawaii
HONUAPO PLANTATION.....Hawaii
HILEA PLANTATION.....Hawaii
STAR MILLS.....Hawaii
HAWAIIAN COM'L & SUGAR CO.....Main
MAKEE PLANTATION.....Main
WAIHEE PLANTATION.....Maui
MAKEE SUGAR CO.....Kaua
KEALIA PLANTATION.....Kauai

Agents for the

OCEANIC STEAMSHIP COMPANY.

Kohler & Frohling, PIONEER WINE HOUSE.

ESTABLISHED 1854

Growers of and Dealers in

CALIFORNIA WINES & BRANDIES.

VINEYARDS IN

LOS ANGELES COUNTY, SONOMA COUNTY
MERCED CO. AND FRESNO CO.

626 MONTCOMERY ST.,
San Francisco.

6 Barclay St.,
New York.

A. ZELLERBACH,

IMPORTER AND DEALER IN

BOOK NEWS FLAT, WRITING
PAPER.

MANILA, WRAPPING AND STRAW PAPER,
Colored, Poster and Tissue Paper Also En-
velopes and Twine.

419 & 421 CLAY STREET.

Four doors below Sansome San Francisco, Cal.



THE SOUTHERN PACIFIC CO.,

Respectfully invites the attention of TOURISTS AND
PLEASURE SEEKERS to the SUPERIOR FACILIT-
IES afforded by the "Southern Division" of its line
for reaching the principal

SUMMER AND WINTER RESORTS OF CALIFORNIA

WITH SPEED, SAFETY AND COMFORT.

Pescadero, Menlo Park, Santa Clara,
San Jose, Madrone Mineral Springs,
Gittory Hot Springs.

-MONTEREY-

"THE QUEEN OF AMERICAN WATERING PLACES."

Camp Goodell, Aptos, Loma Prieta,
Monte Vista, New Brighton, Sequel,
Camp Capitola, and

SANTA CRUZ.

PARAISO HOT SPRINGS.

EL PASO DE ROBLES

HOT AND COLD SULPHUR SPRINGS,
And the only Natural Mud Baths in the World.

This Road runs through one of the richest and
most fertile sections of California, and is the only line
traversing the famous Santa Clara Valley, celebrated
for its productiveness, and the picturesque and park-
like character of its scenery, as also the beautiful San
Benito, Pajaro and Salinas Valleys, the most flourish-
ing agricultural sections of the Pacific Coast.

Along the entire route of the "Northern Division,"
the tourist will meet with a succession of Extensive
Farms, Delightful Suburban Homes, Beautiful Gar-
dens, Immense Orchards and Vineyards, and Lux-
uriant Fields of Grain; indeed a continuous panorama
of enchanting Mountain, Valley and Coast scenery is
presented to the view.

Characteristics of this Line:

GOOD ROAD-BED STEEL RAILS. ELEGANT CARS.
LOW RATES. FAST TIME. FINE SCENERY.

Ticket Offices - Passenger Depot, Townsend street,
Valencia St. Station, and No. 613 Market Street,
Grand Hotel.
A. C. HANSETT, Superintendent. H. R. JUDAH,
Asst. Pass. and Tkt. Agt.

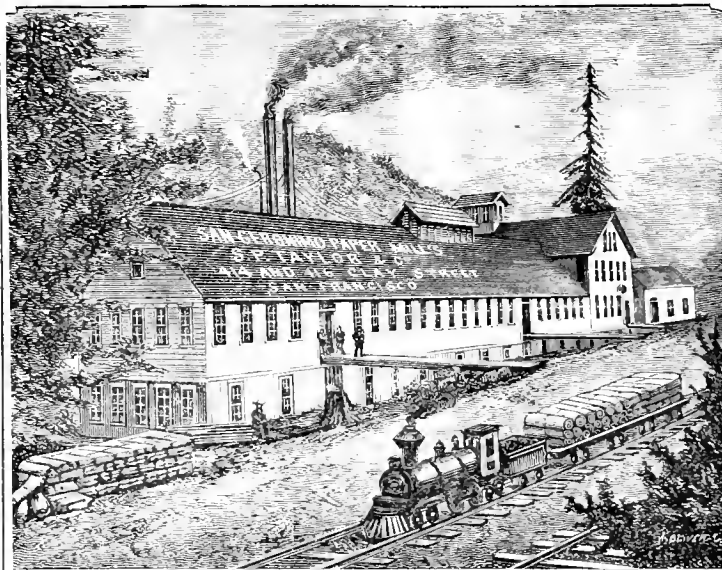
1856.

PAPER.

1886.

S. P. TAYLOR & CO.

Manufacturers of and Dealers in Paper of all kinds.



Book, News, Manila, Hardware, Straw and Tissue

PAPER.

Paper Bags, Twines, Etc., Etc.
PRINTED WRAPPERS A SPECIALTY.

Proprietors Pioneer and San Geronimo Mills. Agents for South Coast (Straw) Mills.

414 and 416 CLAY ST., SAN FRANCISCO.

S. P. COMPANY.

QUICK TIME AND CHEAP FARES

To Eastern and European Cities

Via the Great Trans-continental All Rail Routes

— OF THE —

SOUTHERN PACIFIC COMPANY.

(PACIFIC SYSTEM)

Daily Express and Emigrant Trains make prompt con-
nections with the several Railway Lines in the East,

CONNECTING AT

NEW YORK AND NEW ORLEANS

with the several Steamer Lines to

ALL EUROPEAN PORTS.

PULLMAN PALACE SLEEPING CARS

attached to Overland Express Trains.

THIRD-CLASS SLEEPING CARS

are run daily with Overland Emigrant Trains.

No additional charge for Berths in Third-class Cars.

25 Tickets sold, Sleeping-car Berths secured, and
other information given upon application at the Com-
pany's Offices, where passengers calling in person can
secure choice of routes, etc.

Railroad Lands

FOR SALE ON REASONABLE TERMS.

Apply to, or address,

W. H. MILLS, JEROME MADDEN,
Local Agent, Local Agent,
C. P. R. R. SAN FRANCISCO, S. P. R. R. SAN FRANCISCO

A. N. TOWNE, T. H. GOODMAN,
General Manager, Gen. Pass. & Tkt. Agt.
SAN FRANCISCO, CAL.

SHIPPING.

OCEANIC STEAMSHIP COMPANY.

CARRYING THE UNITED STATES, HAWAIIAN
and Colonial mails for

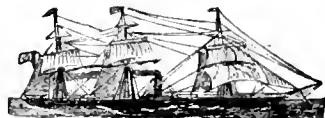
HONOLULU,

AUCKLAND,

and SYDNEY

WITHOUT CHANGE.

The splendid new 3,000-ton Steamer



MARAROA

Will leave the Company's wharf, corner Stenart
and Folsom streets,

SATURDAY, September 25th at 2 P. M.

Or immediately on arrival of the English mails.

For Honolulu and Sydney Only,

The Steamer

AUSTRALIA.....Friday, October 1st

For freight or passage apply at office, 327 Market st.

JOHN D. SPRECKELS & BROS.,

General Agents.

OCCIDENTAL & ORIENTAL STEAMSHIP COMPANY.

for JAPAN and CHINA.

Steamers leave Wharf corner First and Brannan sts.
at 2 o'clock, P. M., for

YOKOHAMA and HONGKONG.

Connecting at Yokohama with steamers for Shanghai.

1886.

STEAMER. FROM SAN FRANCISCO.

GALIC.....THURSDAY, SEPT. 30th

BE GIC.....TUESDAY, OCTOBER 19th

SAY PABLO.....TUESDAY, NOVEMBER 9th

OCEANIC.....WEDNESDAY, DEC. 1st

GALIC.....TUESDAY, DECEMBER 21st

EXCURSION TICKETS to Yokohama and return
at reduced rates.

Cabin plans on exhibition and Passage Tickets for
sale at C. P. R. Company's General Offices, Room 74,
corner Fourth and Townsend streets.

For freight apply to GEO. H. RICE, Freight Agent,
at the Pacific Mail Steamship Company's Wharf, or
at No. 202 Market street, Union Block.

T. H. GOODMAN Gen. Passenger Agent.
LELAND STANFORD President

SPRAY PUMPS.

Fruit Growers, Farmers, and all desiring to purchase
a Spray Pump that is far ahead of all others in the
market, as it is the ONLY Pump made with all metal
valves, should buy the "CLIMAX SPRAY
PUMP," all complete with tube, spray nozzle,
plain nozzle, galvanized iron can, six feet of best Rubber
Hose; capacity, 8 gallons; all ready to use. Price,
\$15.00. Good Agents wanted at once. Send for
Circulars. 211 California St., San Fran-
cisco, Cal.

Williams, Dimond & Co.

SHIPPING

—AND—

COMMISSION MERCHANTS, UNION BLOCK,

CORNER PINK AND MARKET STS., San Francisco, Cal.

Agents for Pacific Mail Steamship Co., Pacific Steam
Navigation Co., the Cunard Royal Mail Steam
Ship Company, the California Line
of Packets from New York,
the Hawaiian Line
of Packets.

The China Traders Insurance Company (Limited.)

BONESTELL
AND CO.
PAPER WAREHOUSE
IMPORTERS OF ALL KINDS OF
Printing and Wrapping Papers.
401 & 403 SANOME ST., S. F.

THE SAN FRANCISCO MERCHANT.

THE ONLY VITICULTURAL PAPER IN THE STATE.

Devoted to Viticulture, Olive Culture, and other Productions, Manufactures and Commerce of the Pacific Coast.

VOL. XVII, NO. 13.

SAN FRANCISCO, OCTOBER 8, 1886.

PRICE 15 CENTS

CHEAP WINES.

CHAPTER VII.

Classification of wines—Light or pure wine—Sweet wine—Sparkling wine—*Vins de liqueur* or fortified wines—Geographical classification—Wines of France—Political finance and prohibition—Bordeaux and the poet Ausonius—Classification of Bordeaux wines—Medoc—Graves—Petits Graves—Sauternes—Libourne—St. Emilion—Bourg—Blaye—Entre deux mers—White wines—Red wines—Nomenclature of wine—Miscellaneous—Different kinds of thirst.

By ROBERT DREVITT.

Now we must hasten on from wine in the abstract, to the various kinds we meet with in actual life. But first of all, we must say three words on classification, whether as to the nature of the wine, or the place it comes from.

Four kinds of wine are met with—first the real or pure wine, grape juice fermented dry, of which we may take red Bordeaux wine as our pattern. Secondly, sweet wines, containing a considerable quantity of unfermented sugar, but not fortified, as the Tokay. Thirdly, sparkling wines, like champagne; and fourthly, fortified wines, of which port and sherry are common examples.

Wine is generally named after the place it comes from; and speaking broadly, the wine of every country has some qualities of its own by which an experienced person can recognize it. Of the several classes in ordinary use three are French,—the Bordeaux, Burgundy and South of France,—besides the sparkling wines of Champagne!

To the east, the Moselle and the Rhine, with their tributaries; Switzerland, Austria and Hungary; to the south, Greece, Italy, Spain and Portugal, Sicily and Madeira, the Cape of Good Hope and the Australian Colonies, each supplies wine which we must say a few words upon. Draw a line from the mouth of the Loire to the point where the Rhine enters the swamps of Holland, and you have the northern limits of profitable vine culture in Western Europe. In few words, it is neither the heat of the tropics nor a rainy climate like that of England that the vine requires. Like a hardy plant, it bears a considerable amount of cold, but it needs a long hot dry summer to ripen its fruit. Wine is made in Palestine, Egypt and Persia, but hardly as an article of commerce. From Peru I have tasted a

sample of Pisco; but am ashamed to say that I know the wines of North America only by repute.

Without any doubt wine can be made in England in some favored spots. In Dean Hook's Lives of the Archbishops of Canterbury, some records are cited of ancient vineyards, such as those of the Bishop of Ely, on the western slopes bounding the valley of the Flete. Wherever those much maligned men "the monks" settled, there they must have taken wine for the sacrament, and the effort to plant the vine as an instrument of civilization. Wine is still made in the neighborhood of Guildford, for private use. But it is evident that our forefathers soon gave up the idea of home supply, and that their wine was procured from those countries in the west of Europe which were most accessible by sea. Chief among such sources were Gascony, Guienne and Aquitaine; whilst rarer wines came from the coasts of Spain, from the Rhine, from the Canary Isles and from Cyprus. In Froissart's Chronicles we read that when young King Edward the Third was at York with his army, in 1327, "good wines from Gascony, Alsace and the Rhine were in abundance and reasonable," whilst even farther north, on the banks of the Tyne, the country people bring a poor thin wine in large barrels, and sell a gallon for six groats, though barely worth sixpence.

France continued the great wine source for England till near the end of the seventeenth century. Then French wines were heavily taxed to spite the French, and, after some fluctuations, were visited with a duty almost prohibitory. The alliance of Charles II. with a Portuguese Infanta, the support given by the Court of Versailles to the Stuart family, and the intrigues of Louis XIV. in Spain, successively induced the English Government to cultivate a closer alliance with Portugal, which culminated in the Methuen treaty in 1703. In 1675, says Mr. Deuman, there came to England 14,900 pipes of French wine to 40 of those of Portugal; in 1676, there were 19,290 French to 160 Portuguese; but between 1679 and 1685 only 8 pipes of French wine were imported, whilst 13,760 pipes of Portuguese came in. By the end of the eighteenth century, French wine did not form one per cent of the wine used in England. Well may we say with Mr. Shaw, that the French wines have not had fair play. For political purposes our people

were bribed to drink of the "drugged chalice" of Portugal, whilst hatred against the French has been instilled as a religious creed, and their fine wholesome wines kept out by extravagant differential duties.

During the early part of the eighteenth century, French wine was banished from England by politicians; but the educated and intellectual classes grumbled as much then as they would now if all wines were banished save South African. As cheap wine now is called "Gladstone," so, but with less of respect, port was called "Methuen." The stage reviled it; the poets Prior, Shenstone, Pope, all had a fling at it as dull, muddled, humble, thick, flat, cheap stuff. I can refer to one besides, who was physician as well as poet—Armstrong, author of the "Art of Health," who, in describing a man's sensations on awaking, after drinking port over night, says:

"You curse the stuggish port, you curse the wretch,
The felon, with unnatural mixture, first
Who dared to violate the virgin wine."

Again, when speaking of wholesome wine, he praises

"The gay, serene, good-natured Burgundy,
Or the fresh fragrant vintage of the Rhine."

Again, he describes Burgundy as the drink for gentlemen, and port as an abomination;

"The man to well-bred Burgundy brought up,
Will start the smack of Methuen in the cup."

The political significance of the wine duties was unmistakable. Claret was a symbol of loyalty to the ancient Royal House, which had taken refuge in France. Claret harmonizes with the light ethereal character of the great Celtic race. Port was a symbol of Whiggery and Presbyterianism.

"Erect and firm the Caledonian stood,
Old was his mutton, and his claret good;
'Let him drink port,' the English statesman cried,
He drank the poison, and his spirit died."

These are lines from the tragedy of "Douglas," by John Home, who died 1805, whose grand-nephew, G. Y. Home of Red Cross Street, Bristol, is one of those honorable and chivalrous wine merchants who regard the character of their wine much more than their profit.

The reign of Port coincides with the growth of the national debt, the isolation of the English from continental society, the decay of architecture, and that "chauvinism" (as it has since been called), that ignorant national pride, which begot the popular dicta that "all foreigners are fools," that "one Englishman can lick three

Frenchmen," that true religion, and virtue, and freedom, and morality, and beef and pudding and good beer, were special blessings of the English, conferred on them by a discerning Deity; whilst Popery and tyranny and wooden shoes, arbitrary power and a diet of frogs and sour wine, were the especial curses of the French. Not to drink damnation to the French in Port wine would have been considered a treason to the House of Hanover. Look at Hogarth's prints, and read Smollett's novels, to see how the French were despised for their abject submission to the remains of the feudal system, which were, it is true, vexations enough. Even the partridges were said to be lean because of the tyranny of the nobles. But when the people—the Celtic population—at the end of the last century revolted against the descendants of the Chlodwigs and their feudal lords (who were really of Franco-German descent), it is true that the depressed town populations committed great excesses and most deplorable cruelties. But whether slaves or free, it seemed a religious duty with the country parsons and squires to hate the French, first for their slavery, next for their revolution. Everything French was painted in the blackest colors. Of course, free-born Britons could not tolerate French wine, thin, sour and impregnated with mischief. Good Claret was described as willing to be Port if it could. People who then knew, and now know no more of France than a Frenchman would know of England if he should live at a London hotel and spend his evenings at Cremorne, take upon themselves to revile everything French; not knowing that the French landed proprietors are among the most virtuous, industrious, frugal and intelligent persons on the face of the earth; their wives and daughters patterns of religion and morality; and the peasants frugal and self-reliant. The mass of the French are of the same blood with our fellow subjects in Ireland, the Highlands, Wales and Devonshire. The two nations ought to mingle and supply each other's defects, moral and material. If (to borrow some wine terms) the English have too much of the *cors, dur, vineux, ferme*, not to say *apere* and *montant*, they have need of a *coupage* with some of the *moelleux, souple and veloute* of the French. I was once at a restaurant near Paris, when an Englishman came up. The waiter approached him and politely handed him the

hill of fare. "Garsong," said our countryman, "don't give me any of your d—d kickshaws, but let us have an honest English chop or steak." Now suppose a Frenchman were to enter a London eating house and say as loudly as possible, "Waitère! Mistère Godam! don't bring me your *sacre* lumps of raw flesh and *légumes à l'eau*, but let me have an elegant French repast," he would run the risk of being kicked out. Now what is to cure the Englishman of this offensive humphousness, and give him a little of that consideration for other people, that true suavity and grace of manner for which the French are so distinguished? Why, give him some good Bordeaux wine! teach him that force is not the only virtue; and promote the intimate alliance of the two nations, so long separated by unnatural prejudices.

We need not dwell on the enormous production of wine in France. It is grown in seventy-nine out of eighty-nine departments, and the quantity produced was estimated at 50,456,421 hectolitres in 1864, and at 70,910,220 hectolitres in 1869. Besides this wine, which is valued at 1,628,807,753 francs, the *marc*, or pressed husks, yields 1,193,000 hectolitres of brandy, value 59,650,000 francs; the residue from the *marc* is valued at 80,000,000 francs for fodder of cattle, and 16,740,000 francs worth of manure. The young shoots of the vine are worth 23,860,000 francs as fodder, and the old wood at 95,400,000 for fuel; so that the whole value of vine products amounts to 1,904,457,753 francs, which is estimated to be equal to the support of a rural population of 7,617,828 individuals. No other crop anywhere is capable of maintaining so large a population. "Lands unfit, through their dryness, for any other crop," says M. Michel Chevalier, "become lucrative through the vine, and lands already fertile have their fertility doubled."

The teetotalers who rave about the wickedness of converting a twopenny loaf into a pot of beer, are dumbfounded by the vine, which grows on mere scrub where no barley would flourish.

It really seems a stupid thing that two nations like the French and English should vex each other by putting difficulties in the way of supplying their mutual wants. But a trace to this reflection. Let us now reverently approach the wines of that great district which has the ancient Burdigala or Bordeaux for its center; that which gave the ancient wine of our forefathers; that which inspired England when it was yet merry England. M. Terrel des Chenes quotes to the following effect from a speech of Cobden's, which I hope that great man's disciples will not ignore in any further alterations of the wine duties: "Every nation except the English considers the French wines the best in the world. We alone take adulterated wines in preference to them. Those of us who can get them, prefer those brutalizing and inflammatory mixtures called Port and Sherry. A friend of mine had lately a fancy for seeking material amongst our national ballads for a collection of drinking-songs. He told me that he found that all these songs were in honor of French wines—Champagne, Burgundy or Bordeaux. They were all old songs, written in the times when our forefathers drank or preferred the French wines; but from the time when they could no longer obtain these wines, drinking-songs ceased. My friend arrived at the conclusion that when the English used to drink French wine, it made them sing and be merry; but when they began to drink Port

and Sherry, these made them stupid and brutal."

The wines of Bordeaux have a reputation of no late date. The poet Ausonius, who was a native of the city, and late in life its prefect, is believed to have lived at what is now the Chateau de Bel Air, in the district of St. Emilion, in the arrondissement of Libourne. He lived between Anno Domini 320 and 400. In his idyllic poem in praise of his country place, or *villula*, which his great-grandfather had possessed before him, he says:

"Agri bis centum colo Jugeri: vinea centum
Jugeribus colitur, pratæque dimidiis—
Sylvæ supra duplum quam prata, et vinea, et arvum,
Cultor agri nobis nec superest, nec abest."

In speaking of the Moselle, in another idyll, he says it reminds him of the bright Bordeaux—

"nitentis Burdigalæ"

Again, in praising the oysters of Bordeaux, he says they are as good as the wine—

"Non laudata minus, nostri quam gloria vini."

What we in England call the Bordeaux District is, according to the modern subdivision of France, the Department of the Gironde. If we look on the map we see that within its borders is situated the confluence of the Garonne with the Dordogne. The soil is very varied, hilly and marshy, but all tertiary gravel, sands, clays, marls and alluvium.

Following the arrangement of M. Edouard Férét, to whose work I must refer any one who desires more information, we find the Bordelais territory subdivided into the following parts: 1st—The Médoc, upper and lower. Draw a line from Arcachon to Blanquefort, and you have a triangular bit, bounded on the south by this imaginary line, on the west by the sea, and on the north and east by the river Gironde; and it is on a strip about eight kilometres wide, along the left bank of the river, that the celebrated wines of the Médoc are produced. Here we read reverentially of the five grand classes, or *crus* (more often talked about than tasted by ordinary mortals), the first class embracing Chateau Lafitte, Chateau Margaux, Chateau Latour (and Chateau Haut Brion in the Graves); the second class embracing sixteen wines, such as Mouton, Rauzan, Léoville, Pichon Longueville, Cos d'Estournel, etc.; the third class, thirteen wines, including Kirwan, Lagrange, Langoa, etc.; the fourth class, St. Pierre, Chateau Beycheville, etc.; and the fifth class, Pontet Canet, Bataille, etc., etc. These wines, according to their year, their age, etc., fetch from 1200 to 10,000 francs for barriques of 225 litres. Below these five grand *crus*, the Médoc wines are ranked as *bourgeois* of two or three degrees, *artisans* and *paysans*; below these come the *ordinary*.

A distinction is made between wine from the *Côtes* or hill-sides, and wine from the *Palus* or marsh.

There are forty-two communes in the Médoc in which wine is made, and from each of which wine takes its name; though be it observed that the *grand* wines are named after the *estates*. A "Margaux" wine means a wine from the commune (or parish) so-called; a "Chateau Margaux" means from the vignoble of a special estate. Pauillac is the name of a canton in which Chateau Lafite is situated. Other familiar names are St. Julien de Reignac and St. Estephe.

The second Bordeaux wine district is Les Graves, also on the left bank of the Garonne, above the Médoc and continuous with it. The chief wine here is the Chateau Haut Brion, one of the first class.

The third district, *les Petits Graves*, higher up the left bank, produces good red and white wine. Here we meet with the well-known name Podensac.

The fourth district, still extending up the left bank of the river, is the great white wine district, whose produce has the general name of *Sauternes*, of which the queen is the Chateau Yquem, also more frequently quoted than tasted. Barsac, Bommes and Chateau Suduiraut are other seductive names.

Next to the Chateau Yquem stands the Chateau Vignaux Pontac, of which the 1861 wine was adjudged superior to any Rhine wine at the French Exhibition of 1867.

For the fifth district we have Libourne, including the St. Emilion and Fronsac districts, on the right bank of the Dordogne, and that of Cubzac.

Sixthly, there are the districts of Bourg and Blaye on the right bank of the Dordogne, while *Entre deux mers* occupies the angle.

From the district of which I have given a sketch, in which about 2304 *principa* wine growers, and about 1584 *principal* *crus* of wine are enumerated in M. Férét's work and in which between two and three million hectolitres of the best wine in the world is made in most years, there are all qualities, from the unapproachable Chateau Yquem and Lafite, to the good sound ordinary which we can get at a shilling a bottle. The general character of the Bordeaux wine is purity, subastringency, lightness and fragrance.

I may say a few words on the white wines first. *Ceteris paribus*, white wines are more perfect of their kind than red; their flavors are finer; they are more seductive, subtle and feminine, more stimulating and exasperating (or the contrary to narcotic.) They veil and neutralize that which is fat and glutinous. They act as foils to the taste of soup, fish and the rich dishes which a hungry man likes to begin dinner with, better than red wine, and they are more aperient, or at least less astringent. They are not so popular nor commonly used, except by sensible people, who are always a minority.

The white Bordeaux wines vary from the thinnest acidulous disembodied wine to the lordly Sauternes. Of the Chateau Yquem I have spoken elsewhere as a wine of perfection, in which a large quantity of the richness of the grapes becomes blended by age into a body of inexhaustible fragrance. I open a bottle from MM. Fauché, Fils and C. Brisac, of "Haut Sauterne, 1851," consequently twenty-one years old. It is of the palest primrose color, distinctly acidulous, subtle and penetrating, soft, and without a particle of heat, little or no body, and with a fine floral bouquet. The price was only 5fr. f.o.b. at Bordeaux in 1865, and it shows how little alcohol is needed for preservation if there is purity. I have before mentioned a Langoiran from the same house. I have notes of a Barsac, 1859, from the same, at fr. 2.50; of a Sauterne, sound and pleasant, from Trapp, at 20s. per dozen; of another, 1858, from the same, a delicious, full-flavored, grapy wine. We may put these wines into two categories: the very full-bodied, sublimous and grapy; and the dry. The former are expensive, full of flavor, and deserve to be sipped leisurely; the latter are decidedly not the wines for the people who want to go to sleep. They excite the appetite and rouse the heart and brain. I believe that these,

like other white wines, are much too little in use.

Next for the audacious attempt to epitomize the qualities of the red wines of the Gironde in the short space available. For my purpose I may divide them into expensive wines, or ordinary or cheap wines, never forgetting that the original motive of my writing on wine at all, was to show that good wholesome wine can be had for moderate prices, and that the extended use of it would be a public benefit.

Respecting the more expensive and classed wines, I have mentioned Chateau Lafite at a former page. Within these few days I have tasted a genuine Chateau Margaux of 1848, a wine that has passed its climax, getting thinner and very slightly bitter; but what cleanness and flavor! The *Cos d'Estournel* I used to drink at the hospitable table of S. P. C., whose memory is as fragrant as his wine. The Chateau Mouton, 1861, at 7fr., from the Caves de la Gironde, a finished, delicate, charming wine; Chateau Langoa, 1861, at 4s., a dry, light, most agreeable wine; Latour, Bataille, Beycheville, Léoville, all of which I have tasted specimens of undoubted genuineness; these all bring back the memory of first-class wines. I believe no better rules to drink by can be given than my own; so let me say that these wines have absolute oneness of taste; they are generous without heat; acid with no obtrusiveness of acidity; have not a particle of sweetness, a certain fine, stable, round taste, astringency perceptible but not obtrusive—but of the body and of the bouquet, who shall presume to speak?—the exquisite full body, and the delicate perfume which is felt in deglutition, combined in a whole of exquisite softness and harmony, and adorned with that magnificent dark ruby carbuncular color of unfathomable brilliancy. Such are the characters of the grand wines, which amongst the humbler classes, to whom I belong, must be reserved for occasional festivity and for the recuperation of the sick.

I have been much attacked for giving my labors the title of "Reports on Cheap Wine." Doubtless the word "cheap" has, with some people, unpleasant associations. And it is quite true that there are some great luxuries which are of necessity scarce, and therefore fetch a high price, and that some cheap imitations of these are nasty enough. Yet our greatest luxuries consist really of things which are of themselves cheap enough, but which, if perfect, of their kind, give us half the comforts of our life. The aim of the really luxurious man should be not to indulge occasionally in costly and exceptional delicacies, but to have all ordinary surroundings, all homely details, as good in their respective kinds as possible. What can be greater luxuries than pure fresh air, moderate warmth and cleanliness? What a treat is good yellow primrose soap and a good towel? Yet how cheap compared with some perfumed soap that can't cleanse, and diapered towel that won't wipe dry! How absurd to see tasteless and second-rate bread, bad butter and bad potatoes, even in houses where the expenditure in unnecessary luxuries is extravagant! where, perhaps, some port, Madairs, or "Chateau something," at fabulous prices, are the boast of the cellar, but where they can't pour you out a tumblerful of decent ordinary claret at luncheon. I affirm that the greatest luxuries are derivable from the enjoyment of cheap things—i. e., of things produced bountifully and

plentifully, when such things are good, each according to its proper standard.

This is pre-eminently the case with wine. There is far more enjoyment got out of wine by the many who are able to drink without stint a good pure ordinary, than by the few who are able to purchase the rarest vintages; and as, like all things for popular use, wine must be cheap if popular, it is worth while to examine into this point. Are we to believe the few who, in solitary grandeur, tell us that all cheap wine is rubbish? or can we persuade ourselves that wine is really plentiful, and that there is wine enough in the world for us all?

Of cheap claret, every variety is to be got, from that which would do for vinegar to that which recalls many of the properties of the grand wines spoken of above. If a man imports from a grower, and goes to work economically, he can lay it down at less than a shilling a bottle. I must reserve to another chapter what I want to say about bottling wine at home, but may observe that it is positively unfair to drink any wine that has been less than six months at rest in bottle. If it were the finest *Chateau Quelconque*, only just bottled, it would be heated, *eventé*, flat, sourish, destitute of flavor; how wrong, then, to expect it in perfection when it is had in by half-dozens fresh bottled? It may be very good, but would give three times as much pleasure if at rest six months.

There are several wine merchants who make efforts to obtain good wine direct from the grower, and to supply it at reasonable prices, and to some of whom I am indebted for specimens and for information. Amongst these I must quote Messrs. Trapp, whom I must thank for specimens of Lachenaye at 36s, 1861: Chateau Lango, 1861, at 54s, a charming light, dry wine; and Chateau Latour, 1862, at 70s. Messrs. Collier of Plymouth have sent me specimens of some of the finest growths of 1864. Mr. Blaxall, of Lamb's Conduit Street, some Chateau Latour Gueyraud, from the Palus of Entre deux Mers. Mr. Mauley P. Bendall, Rue de la Verrerie, Bordeaux, sent me a most sensible letter, with samples of Médoc, Ladon and Margaux, as types of the lower classes of pure and wholesome within the means of all customers. M. le Baron du Périer de Larnan is sending over wines remarkable for their purity, high quality and moderate price.

But any wine merchants in London or the country, or at Bordeaux, can easily supply a *barrique* of good ordinary, old or young, light or full, at almost any price the purchaser chooses.

What do the names given to wine really mean? Firstly, you may have a genuine wine named after the estate of the proprietor. This you may believe if his brand is on the cask and his label on the bottle, and if you have imported the wine direct from him, or from a first-class house in the nearest city, say at Beaune or Bordeaux, or some man of character at home. Secondly, some of the names show the district; for instance, "Fronsac," "Montferand," etc., come from the *communes* indicated. But, thirdly, with retail dealers the name is often a mere conventional sign of the quality of the wine. Thus, one may see in a wine merchant's list, the names of half a score of villages or towns: Moulin à Vent, 3s.; Savigny, 3s. 6d.; Beaune, 4s.; Pomard, 4s. 6d.; Nuits, 5s.; Volnay, 5s. 6d., etc.; each priced 6d. higher than its predecessor. This merely means that there

is a certain standard of goodness, which a wine ought to have when it is called by these names; but if anybody thinks that all the wine ticketed Pomard or Volnay, etc., comes from those places—why, he may be complimented on his faith.

Now for a few words on the uses of these wines. They are of moderate alcoholic strength, averaging under 20 per cent; they are perfectly fermented and free from sugar and other materials likely to undergo imperfect digestion and provoke gout or headache; and they are admirably well adapted for children, for literary persons, and for all whose occupations are chiefly carried on indoors, and which tax the brain more than the muscles.

As for persons whose occupations are carried on in the open air, and require much exertion of muscles and little of brains, there is good beer to be had in abundance, and no better investment of a penny can be conceived than half a pint or a pint of ordinary London porter—call it "cabman's mixture" if you please. But as for the numbers of persons—very poor ones, too—who lead indoor lives, such as teachers, milliners, dressmakers, and needlewomen of all sorts, if they are young, they can drink beer, perhaps, and make up by "antibilious pills" for want of exercise and fresh vegetables. But once past thirty, beer, as a rule, can no longer be taken with impunity by a great many of them; gout and rheumatism take the place of "bilious disorders;" and their choice is between wine and gin. Wine of the best and purest sorts heretofore was virtually inaccessible; now at least it can be got by any persons who have the good sense to prefer it to gin, and economy and forethought enough to feel that a saving of a few pence weekly in an habitual article of food is a bad compensation for illness now or hereafter.

I would that my voice could reach the British tradesman. I don't mean the personage who lives out of town and drives into his place of business in a brougham, but the genuine, old-fashioned, portly fellow who stands behind the counter all day, stays indoors all the week, drinks beer at his one o'clock dinner, and gin or brandy-and-water at night; makes up his books on Sunday mornings, takes an hour or so of fresh air between one and three, and then devotes Sunday afternoon and evening to a good dinner, with a bottle of port; has, perhaps, as Charles Lamb said, a bit of sausage with his tea, and a little something warm and comfortable at night. When I look at the enlarging forms of these honest fellows, and think of their food as compared with their work; and further, when I think of the frightful mortality amongst them in cold winters from "bronchitis"—(say, rather, from a blood too thick and a heart too flabby),—I cannot help thinking that if the maid servant were to fetch a bottle of *vin ordinaire* from the cellar, instead of a pot of beer from the public-house, for the family noonday repast, and if it were substituted for the gin-and-water at night, our too solid tradesman would have a more useful liver and lights under his ample waistcoat, and would not be nearly so liable to

"Fall as the leaves do, and die in October."

It will be a good day for the morals, health and intellectual development of the English when every decent person shall on all hospitable occasions be able to produce a bottle of wine and discuss its flavor, instead of, as at present, glorying in the strength of his potatoes.

One thing that would go with the greater use of Bordeaux wine would be the custom of drinking it in its proper place—*during dinner*—as a refreshing and appetizing draught, to entice the languid palate to demand an additional slice of mutton. Physicians who practice amongst town children, of a class in life where prevention is looked to as well as cure, know well the capricious and feeble appetites of many children; how they cut off their fat and the brown, and how they reject every morsel at all and r-d-one. Be the case what it may, children must have *quantity and variety of food*. If not, if the parents content themselves with the slovenly surveillance of servants, who report that Master Johnny is a remarkable child, quite healthy, but won't eat his meat; or that Miss Jeannie is plump, and so strong that she takes and requires as great a dose of aperient medicine as a grown man, and that she loves bread and butter and sugar better than meat;—then comes an age—say fourteen to seventeen—when the teeth are found to be decayed, or when the boy or girl is said to have a "delicate chest," and must go to Torquay, or the young lady to some chalybeate water, and all these other horrors too well known to parents of "delicate," i. e., underfed or appetiteless children. Much of this might have been prevented, punches of cod-liver oil might be spared at the age of 16-20, if, at the age of 7-10, the governess had said, "Miss Jeannie won't eat her mutton," and if the physician had said, "Give her some kind of light, clean-tasting, sub-acid wine—Bordeaux or Hungarian—let her sip this, *ad libitum*, at dinner, so that it may tempt her to relish her mutton."

Curious are the social changes of sixty years. Dr. Trotter, who wrote a book on drunkenness at the beginning of this century, denounces the custom of taking wine at dinner. "Thracum est," he exclaims, "tollite barbarum morem!" To drink *after dinner* was then orthodox. Now, we say, drink what you please at dinner: the more and the more varied the wine (on festive occasions) the better; but don't *sit* and drink after dinner.

The Bordeaux, like other fine light wines, make pure healthy blood, and at the same time favor the action of the excretory organs; they are good in the anemia and chlorosis of growing girls. How often I have wished that the patients coming from a Dispensary or out-patients' Hospital room could have had a bottle of such wine, instead of the filthy "mixtures" that they carry away in their dirty bottles! Mixtures, too, contaminated with methylated spirit! which the infernal ingenuity of wholesale chemists supplies at low rates, in the shape of "tinctures," to parsimonious Dispensary committees! O Charity! what crimes are committed in thy name!

To persons of the gouty and rheumatic temperament—maladies which they vainly attempt to keep at bay by the driest of diets, such as meat, bread and brandy-and-water—Bordeaux wines are of special service; they neither turn sour themselves, nor are they the cause of sourness in other articles of food. But, be it observed, they are *beverages and not drams*.

Then what a boon it would be to the very flower of our female population if the medical profession were courageous enough to set at defiance all the army of Mrs. Gamps who infest the lying-in chamber, and who insist on cramming young mothers with the heaviest beer or porter, brandied wine and ardent spirits, on the pretence of

keeping up their strength and assisting them to nurse! If ever there were a fit machinery for making women drunkards, it was the whole organization of the lying-in chamber, as it was when I first knew practice, and even that was an improvement on times gone by. A poor woman, after the pains of childbirth, was loaded with bed-clothes, and carefully shut out from fresh air and denied wholesome ablutions, in order, as it was said, to keep out the demon cold. She was starved, denied a slice of roast mutton or any solid food, and saturated with gruel and other fearful slops in order to propitiate the demon inflammation. Fruit and vegetables were denied, because of the belching demons Acidity and Wind! Then, when duly softened, sweated, blanched, puffed, nerveless and breathless, she was exhorted to take stout or ale and port wine to keep up her strength and make milk for the little one. How soon young women got a bloated look and lost their youthfulness under this *regime*, every man of observation knows too well. But it is not so well known that in Lumber circles, where no port wine is to be had, the gin bottle was and is the substitute. Talk of Mission Women! Low monthly nurses are the very missionaries of ardent spirits.

But I affirm that, whilst the laboring man's wife, with her active muscular system, can nurse very well on table beer, and wants not a drop of gin, so the lady, with her more active nervous system and delicate organization, can nurse very well on pure clean claret. She may drink abundantly of it, and be fresh, young, rosy, and fit for another innings when her duties are over,—with none of the dusky, venous tint of nose and cheeks, none of the misshapen "figure," for which anatomical corsets and belts are prescribed in vain.

One of the chief great medical uses of the Bordeaux wines is to relieve the restlessness, night wandering and thirst of the exanthemata, and especially of scarlatina and measles, in children. If a child is very stout and red-lipped, I should not press the use of wine during the first day or so; neither, in fact, need one *press* it at all. Mix one part of pure Bordeaux wine with one or two of pure cold water, according to the patient's age, and let him drink it at night *ad libitum*. I know of no "diaphoretic," "saline," or "sedative" so admirably adapted to allay the miserable wandering, the headache and thirst of scarlatina. What an improvement it would be if we were wise enough sometimes to trust to our patient's instinct! It is contrary to all experience that a sick child or other unspoiled person should go on sipping what made its head ache more, or its pulse beat higher, or which added fuel to a tormenting heat and thirst. In measles, so soon as the rash becomes dusky, Bordeaux wine allays the great restlessness. This, be it observed, is not a treatment founded on any hypothesis that alcohol is a good aliment for the nervous system, but an observation of facts at the bedside. It is no more than the small beer which Sydenham used to allow his patients in small-pox and pleurisy.

Any one who observes what takes place within himself may soon distinguish four kinds of thirst. The first is that which arises from want of moisture, as from excessive perspiration in summer, and is almost certainly allayed by water. The next is a false thirst, depending on a disagreeable state of mucous membrane of tongue and fauces. This is common enough with dyspeptic people, and with many

children who are "always thirsty," and is not only not relieved but aggravated by copious draughts of cold water. The third is a thirst truly subjective, depending on the nervous system—the thirst of mental agitation, of bodily pain, or of intense fatigue and exhaustion. Any one who has ever experienced this last may know that whilst mere water is only valuable as a kind of diversion, a drop of wine acts magically. When one sees a man, "unaccustomed to public speaking," humming and hawing, and in vain trying to lubricate his tongue with a glass of cold water provided for public lecturers, it is clear that a more advanced knowledge of physiology would have caused that glass to be filled with wine, to oil the brain, which was the really dry place, whereas the jaws might have been left to themselves. A lady complained to me that her daily governess, when she came to her house, always asked for a glass of cold water. It is very common with sickly, bloodless milliners' girls. Fruit, or food with wine, are the true remedies for the foul tongue and nervous exhaustion which the poor creatures delude themselves by calling thirst.

All three kinds of thirst probably exist in the exanthemata, and after the first or second night, if the patient voluntarily sips and does not reject Bordeaux wine and water, it may be given *ad libitum*. Adult patients have gratefully described to me the extreme refreshment and quietness which such a drink produces throughout scarlatina simplex and angina. Of course, if the patient dislikes it, there is no more to be said.

Fourthly, there is "the thirst that from the soul doth spring"—the craving for intellectual enjoyment and gaiety which wine satisfies effectually and innocently in a way that nothing else can. But let me quote Dr. Guyot with regard to the effect of light wine in quenching the thirst of the body. He says that, "In England the port and sherry never refresh me; they may be capital *vins de liqueur* for occasional use, but for daily habitual ordinary drink at meals, nothing," he says, "equals the wine of the more temperate regions of France."

I put together three classes of patients—rheumatic, gouty and bilious—because they are the chief sufferers from heavy, ill-fermented, alcoholized and ill-blended beers and wines. I have no theories; but state the fact that persons whom I have attended for years enjoy good health whilst they drink pure Bordeaux wine, and suffer in head or joints the moment that they touch port or sherry, unless of the dearest and oldest qualities. Practitioners of the last generation used to be haunted by the demon Acidity, and to think they could cast it out by a diet of meat and brandy. I say, try claret, and you will add ten years to your patient's life and to your own fees.

Dividend Paying Banks.

AMONG THE DIVIDEND paying banks of this city, none is more worthy of mention than the Pacific Bank. This bank has just declared its regular dividend at the rate of ten per cent. per annum. It has gained steadily in public favor and prosperity, until it is now one of the foremost banks. Its capital is \$1,000,000 and surplus over \$500,000, a sufficient guarantee for all those desirous of availing themselves of its confidence and trust.

Subscribe for the MERCHANT.

THE GROWING OF VINES.

By John L. Dow, Special Reporter of the Melbourne Leader in America.

Vine growing of late years has made extraordinary progress in California, and this result is largely due to the establishment by the legislature of a State board of viticultural commissioners, the salary of whose capable officer, and other charges involved in the systematic conservation of instructive knowledge upon viticulture, and its diffusion among the occupiers of the land, are furnished from the general revenue in the same way as has been already described in connection with the successful establishment throughout California of silk culture. As I have remarked on previous occasions, an Australian visitor finds California remarkably like his own country as regards its general features of climate and soil, while the same necessity for devoting attention to other agricultural industries besides wheat growing is forcing itself upon the attention of the Californian farmer as with us. Although there are large vineyards in California devoted exclusively to the production of wine, there is an increasing area of land being annually put under vines by the farmers as an adjunct to their other operations, and of the land set out with wine grapes; there is also a fair proportion of the sorts for raisins and currants. An important feature is to be noted in the fact that under advice of the State Board, the farmers who are adding to their resources by growing 10, 20, 30, 40 or 50 acres of wine grapes do not hamper themselves with the extra expenses and extra risks of trying to make wine. They recognize the wisdom of what has been explained to them, to the effect that vine growing and wine making are as distinct classes of business as wool growing and cloth making; therefore they confine themselves to grape production. In this way they get a quick return by selling the grape juice, and in some instances even the grapes, to buyers who can accept the responsibility of wine manufacture, because it is their special business. To the end that our farmers might have the directions connected with the details of vine culture submitted to them from a board of practical commissioners, as the results of experience in a country so like our own, and among settlers so similarly situated, I had frequent interviews with Mr. Chas. A. Wetmore, the able and courteous officer of the Viticultural Commission in San Francisco, who spared no trouble in supplying me with all the information.

Intending vine growers will of course take steps to select such varieties of vines as are best suited for their locality on the one hand, and for the purpose to which the grapes are to be devoted on the other. The vine grower from whom the farmer arranges to obtain his stock of cuttings will supply valuable advice upon these points. Mr. Wetmore informs me that in California much trouble has been experienced in getting cuttings to strike, owing to the dryness of the climate. They find that canes intended for cuttings should not be cut until well ripened. This precaution should be especially observed in the case of certain varieties, whose branches do not become woody until late in winter. Moreover, cuttings from plants attacked with mildew must not be used as generally they are not well nourished. It has been observed that, as a rule, the cuttings of average development, with nodes not far apart, and taken from the middle of the cane,

present the greatest chances for rooting, and produce the most fruitful plants, and those that yield the soonest. Large canes do not root as easily, and tend to produce wood rather than fruit, while those that are too slender run the risk of withering before taking root; they are often insufficiently ripened, and generally do not make very vigorous plants. It is found expedient, in the reproduction of vines cultivated for their fruit, to choose in preference canes whose flowers set well, and which have yielded the finest and most abundant fruit. These characteristics, peculiar to the cane, are firmly established by this sort of choice, and thus a notable increase in the production is obtained. When, on the contrary, it is a question of producing grafting stocks, it is only necessary to make sure of obtaining vigorous plants, and there is no need of taking these points into account. Canes cut only when it is time to use them, are regarded as offering most chances of success, but cuttings generally have to be brought some distance, and in order that they may suffer no injury they should be packed so that they can neither dry up nor absorb more water than they are in the habit of doing. Drying kills the cutting by depriving it of its natural moisture; while excess of water frequently induces fermentation or mould according to the method of packing and the size of the package; then again, when neither of these accidents occurs, the tissues of the wood, swollen with water, dry up very rapidly on exposure to the air.

The best plan, if the cuttings have not too long a distance to go, is to put them in straw hamper, after having wrapped the bases in slightly wet moss. For longer distances the bundles of cuttings may be entirely enveloped in moss or hay, the bottoms of the bundles being softened by moisture, and then wrapped in dry straw; the whole enclosed in a wrapper of oiled paper. On the arrival of packages put up in this way the cuttings should be soaked for a day or two in water, or else—which is better—laid in damp sand. When the cuttings must be kept some time before setting them out, the surest means of preserving their vitality is to bury them in a heap of sand in a cool place. When they have to be kept but a short time after being cut, it suffices to immerse the lower part in water.

The kinds of cuttings generally used for vines are the mallet cutting and the ordinary cane of new wood. The mallet cutting is the lower part of a cane having a mallet or piece of wood 2 years old attached obliquely to the base. The swelling found at the point where the cane unites with the old wood, is very susceptible of developing roots under ground. It is, however, difficult to plant, owing to the oblique position of the mallet; moreover, the wood of the latter, too old to root well, frequently decays, injuring the health of the plant. It has been suggested, as a remedy for these faults, to do away with the 2-year-old wood, leaving only the swelling at the end of the cane, as then the chances are best for success as regards rooting. The valuable character of some varieties of vines, and the consequent necessity of utilizing all their parts, from the base to the top, however, precludes an exclusive use of this sort of cutting, and it is generally necessary to resort to the ordinary cutting of new wood. This last, which is the simplest and easiest to procure, gives quite satisfactory results. This consists, as its name indicates, of a single fragment of a cane

whose length varies according to circumstances as to what is the best length for cuttings. If only the development and good constitution of the forthcoming plant is cared for, the shortest cuttings are considered the best. Cuttings with a single eye, give rise to a cluster of very strong roots continuous with the cane, which assures remarkable vigor to the plant. Very long cuttings, on the contrary, are covered with a great many tufts of roots arranged on each node, not one of which acquires great development, and which diminish in length from top to bottom down to a point where the cane, incapable of putting forth any more, is without apparent vitality, and sometimes ends in dying and partially decomposing. But the question of proper length is not so simple as it at first appears. The cutting must be planted in sufficiently damp soil to ensure its taking root. Now, in most cases, the requisite freshness is found only at some depth in the soil, whence the necessity of giving the cutting a greater length than at first appears desirable. Cuttings, therefore, should be longer as the soil in which they are to root is drier. Generally their length may vary between 6 and 14 inches, the cane not rising above the ground more than one or two eyes; in most cases it is not regarded as expedient to overstep these limits. Independently of the two types just mentioned, it has been proposed to use the cutting having a single eye under ground, and herbaceous cuttings, in order to multiply vines economically. Set out in light soil, irrigated and properly shaded, these take root tolerably well, but do not make such thrifty plants as do the good, well-ripened cuttings.

Rooting of cuttings, that is to say, the evolution of their roots, can be effected only in a place that affords them proper temperature and humidity, but not excessive. The greatest practical difficulty met with in arriving at this result consists in preventing the cutting drying up before it is able to withstand the waste it undergoes in the atmosphere. Certain species are particularly refractory in propagation by cuttings, on account of the rather long time existing between the period of the development of the buds, and the putting forth of the roots, which causes the plant to evaporate very much so that it can hardly draw any nourishment from the soil. The means of avoiding this difficulty have been well studied in California, and may be classed in two groups:—First, those destined to hasten the development of roots; second, those tending to keep the cutting from drying up before it takes root. To attain the first result, stratification, soaking and barking are resorted to. Stratification consists in completely burying the cuttings, during winter, in light earth or in damp sand, so that some progress may begin preparatory to the putting forth of roots. It has been suggested to stratify cuttings vertically, and inverted according to the position they were in on the plant; it was thought in this way to induce an afflux of materials towards the top eye, which, returning to its primitive lower place when the cutting is planted, would furnish a greater quantity of nourishment to the roots. Experiments tried in this direction did not appear to give results superior to those obtained from ordinary stratification. When the plants are taken from the sand, the precautions given above on the subject of unpacking should be used to prevent the cuttings drying. Soaking cuttings in

water produces analogous effects to those of stratification, only it presents, if continued a little too long, some inconveniences not found in the last process. In fact, the wood is in danger of losing, by maceration, a portion of the soluble materials contained in it, or of rotting. Soaking should be used only in default of stratification, and in any case not continued more than five or six days. Barking is done to induce the formation of excrecent scars of a cellular nature, susceptible of turning into roots. It is done by raising up thongs of bark or that part of the cutting that is to be put under ground, so as to lay bars in several places the generative layers of the wood. By torsion, or a slight brusing of the cutting, the same result is attained, but this induces the formation of cracks, by which the water penetrates the pith, which it more or less disorganizes, so that perfectly healthy plants are rarely obtained by these last methods. The processes used to prevent drying of the cutting before it takes root are irrigation and covering with straw or sand. Irrigation and covering with straw give to the soil or establishes there the water necessary to preserve the freshness of the cutting; it can hardly be applied in other than nursery culture, but there it greatly augments the chance of rooting. Irrigation should be practiced by infiltration, and, moderately, when it is used in rather compact soil especially; there is danger of the canes rotting if the amount of water is too great at first. Entirely covering the cutting with sand retards the vegetation of the exterior buds, and consequently, without lessening that of the roots; moreover, it prevents desiccation of the cutting itself, and of the soil in which it is planted. Each cutting is surrounded with a little conical mound, if the vines are a little apart from each other; in the opposite case, they are covered with a regular continuous ridge following the direction of the row.

With respect to the time for setting out cuttings, it was formerly thought that cuttings soonest planted threw the best, saving in cases of exceptionally humid soil; and that the same result could be obtained as is now through stratification, although taking the chances of injury which sometimes results from excessive humidity of the soil during winter and the action of frost. As the result of the best experience, however, it is considered preferable to stratify the cuttings in sand, and to plant them relatively late, and only when the temperature is high enough to ensure early vegetation. Besides, the time to be chosen depends to a great measure upon the nature of the soil; light and warm earth, well exposed, should always be planted before that which is cold and humid. Cuttings may be set out, either in the open field, in the place where they are to develop, or in nurseries where they are to take root, and whence they are removed, in the form of rooted plants, to be put in their permanent places. Planting immediately in the open field presents the following advantages:—It avoids the expense of transplanting, and the hindrance to the development of the plant which results from this operation; but it is inconvenient, in that the cuttings are nearly always set out in a locality unfavorable to their rooting. It is considered best not to use this method, excepting in light, fresh and fertile soils, and for varieties easy to root. Planting in nurseries, on the contrary, permits the selection,

either through the choice of soil or special care, of conditions most favorable for the rooting of the cuttings and their development. It also lessens the trouble in taking care of them during the first year, as the plants are so much closer together, which admits of cultivation being brought to bear upon the most limited surfaces. It should be employed, almost necessarily, when a vineyard is to be made in clayey land, or in dry, pebbly or shallow soil, or, in short, when varieties somewhat difficult to root are being reproduced. A nursery for supplying deficiencies should, moreover, always accompany the establishment of a young vineyard.

I will conclude here with Mr. Wetmore's conclusions upon nursery culture:—The nursery should be situated, as far as possible, in soil that is light or of medium consistency, well drained, fresh or irrigable. The soil should be perfectly cleared, mellowed by a tilth of from twelve to fourteen inches, and fertilized with compost quickly assimilable, such as stable manure, half decomposed sheep dung, oil cake or chemical composts suitable for a vineyard. The planting is done as follows:—The cuttings are set upright in little ditches with vertical sides; then a portion of the mellow earth is accumulated and pressed down firmly with the foot against the base of the cutting; then the rest of the ditch is filled up with the remaining earth. The distances generally allowed between the cuttings are not sufficient, and prevent the plants attaining all the development possible during the first year. The most suitable distances are reckoned to be about 20 inches between the rows, and from 6 to 8 inches between the vines. When the land is not irrigable and not very fresh in itself, it is well to cover the whole surface with straw; the care of the nursery then consists of simple weeding, not deranging the covering any more than possible as long as its protection appears to be needed. When, on the contrary, it is possible to irrigate, the rows are banked up slightly, so as to leave trenches between them through which the water can circulate and thus irrigate by infiltration. Second tilths, frequently repeated, should alternate with irrigation, in order to preserve the effects as well as possible, while maintaining the cleanliness of the soil. Culture in the nursery may last perhaps for one or two years. Two year old plants are stronger than those of one year, but want of space generally hinders them from acquiring the development that they might have attained in the open field; and as the size and length of their roots renders it difficult to take them up, it is found impossible to avoid mutilating them more or less in extricating them from the ground, and they seldom present sufficient superiority over the others to justify the delay and the supplementary care required. It is, therefore, preferable, in most cases, not to keep plants in the nursery longer than one year.

Grape Rot—An Off Season.

(New York Wine and Fruit Grower.)

This season will be long and sadly remembered by the grape-growers of the States near the Atlantic Seaboard, as one of the most disastrous for many years. The Concord is almost a total failure from rot, and so are nearly all others that are subject to the disease; even the Norton and Cynthiana are a good deal injured in New Jersey, Virginia and all the Southern States. The loss is so heavy that the wine-product will be sensibly diminished, and the markets for table-grapes will be limited to a minimum supply. The prospect now is that there will be not more than half a crop in the entire area east of the Rockies.

The Wines in South Australia.

A tasting of the wines sent to the Colonial Exhibition from Australian vineyards was recent held in the cellars of the Albert Hall by some experts in the trade. In a well-known trade journal, named *Harper's Weekly Gazette*, the opinion formed by some of these gentlemen upon the South Australian wines has been placed on record. We extract from salient points. Referring to the wines sent home by Mr. Thomas Hardy, of the "Tintara," "Bankside," and other vineyards, the opinion is expressed that the sample of the Tintara, a light red wine, showed good color and body, and might well hold its own with any European wine of the same character. The heavier sample of Shiras from the Bankside vineyard showed a wine of good port character, but highly fortified. Of the three samples sent from "Birksgate," a vineyard situated at Glen Osmond, viz., two white and one red, not one was in fit condition, the two whites being absolute vinegar. The samples shown of the produce of the vineyards of Sir Samuel Davenport, of strong red wines, were no exception to the samples previously described. The wines were in a condition totally unfit for exhibition. Referring to the province of the Magill vineyards, the opinion is expressed that the white Pedro was a clean, good-bodied wine of dark color; in reds the Burgundy might be described as misnamed, showing a clean light red wine of but ordinary character; the Shiras showed a pleasant wine, light in body but of a decided muscatel flavor.

The Grange vineyard, planted in 1849, and extended in 1859, by the late Dr. Penfold, comes in for favorable notice. The present proprietors, Messrs. Penfold and Hyland, trading as Penfold & Co., are congratulated upon the excellent condition of their exhibits, each one showing care and attention, which were sadly lacking in other samples shown. In white wines their Tokay showed very well, and met with much approval, and the Muscadine, a thin clean wine, was good of the kind, but hardly suitable to the home market. Of red wines, by far the best showed by this firm was the "Grenache," a good wine with fine bouquet, which was picked out by several experts as the best sample of wine exhibited.

The "Auldana" wines have long been known in this market, and the samples of white shown at the Exhibition were generally approved; the Auldana Cup, a fine wine with decided character, being reckoned the best. This vineyard was commenced as early as 1846 by the late Patrick Auld, who completed his planting in 1856.

The red and white Highercombe wines, from the "Highercombe" vineyard belonging to Sir R. D. Ross, are referred to as having long been known in the London market. Two samples of the produce of Pewsey Vale, the property of Mr. William Gilbert, are shown at the Exhibition; a white Reisling, a light rather thin wine, but clean with good relish, and a red cabernet, a pleasant wine of a thin Burgundy type. Mr. B. Seppelt is represented at the Exhibition by many various wines, but the experts in question do not speak very highly of the samples. Of the red wines his claret was decidedly the best, the other being somewhat coarse and stinky. In whites the best of his samples was the Blanquette, a delicate wine of a pleasing character.

In conclusion, the experts speak favorably of the wine exhibits from this Colony,

which evidently have received attention and careful manipulation, and, generally speaking, are in good condition. One important fact struck them, and that is that the cooperage is decidedly better than is the case with some of the exhibits from other Colonies. The casks are not only in good condition, but are well made, and there are fewer specimens of old brandy and other casks. The conclusion arrived at is, that with a little more knowledge of the requirements for the home market, there should be a good future for South Australian wines.

Our Wine Industry.

The interest which latterly has been aroused in the progress of American vineyard enterprise, is a direct compliment to the vine and raisin growers of California, being one of the established results of a great public-spirited work which, unaided, they have been carrying forward for a number of seasons. The California Viticultural Commission recently sent a representative to New York and Washington to lay before leading wine dealers samples of the products of our vineyards, that they might know something of the flavor, cost of production and proper selling price of a pure California vintage. As a result of the interest created in the remarkable showing, a movement is now on foot for the formation of a national organization of wine makers, for concerted action for the best interests of the industry. The representative of our Viticultural Commission received the general support of Eastern wine dealers when they understood the character of the work in which he was engaged and the nature of the bill which has been introduced to the House of Representatives at his instance. It is gradually becoming known through the United States that good, pure wines can be made in this country, and when honest producers are thoroughly protected against compounders and manufacturers of spurious wines, production and consumption will both show the steady increase which follows the establishment of public confidence in a home product. California wines have been debased by East-ern compounders, but now that samples of pure goods have been widely distributed among the trade, and large correspondence opened between Eastern wine dealers and the growers or their representatives in California, our home product will be given a fair trial in coming seasons and the growers have no fears of the results. It is but a repetition of the experiences of large handlers of the raisin product of the State. When systematic work was first inaugurated by local houses dealing largely in California productions, it was found that Eastern dealers had hindered the introduction of the California fruit. They had encouraged the sale of the foreign product, even when direct inquiry was made for California raisins. They made comparison of the appearance of the fruit damaging to the California product, but were often compelled to admit superiority in flavor and size of bunches. California dealers saw some justice in the complaints made, and decided to remedy all defects in coming seasons, so that the home product should fairly enter the lists for the favors of the trade and consumers in the East. The dealers succeeded in inducing the growers to systemize the grading and packing of their product, and now it is an admitted fact that every season California produces raisins superior to similar grades of Spanish fruit. There is no surplus of the crop to carry from season to season. The products of certain vineyards are sold long before they have left the packing house, and the general demand for the fruit is outstripping the productive capacity of the vineyards.—*Grace and Cannon.*



ISSUED FORTNIGHTLY ON FRIDAY MORNING BY

E. C. HUGHES & Co., - - Proprietors.

CHARLES R. BUCKLAND, - - - Editor.

Office, 511 Sansome street. Postoffice Box, 2366

TERMS—PAYABLE IN ADVANCE.

One copy one year \$3 00
 One copy six months 1 75
 including city delivery, United States, or Canadian
 Postage.

Entered at the Postoffice as second class matter.

AGENTS.

ANAHEIM.....MAX NERELUNG
 CLOVERDALE, Sonoma Co.....J. A. CARRIE
 DIXON, Solano Co.....A. R. STORY
 DUNCAN'S MILLS, Sonoma Co.....C. F. SLOAN
 FRESNO.....H. C. WARNER
 GEYSERVILLE, Sonoma Co.....D. LEPP
 HEADSBURG, Sonoma Co.....A. BALTZELL
 MAXWELL, Colusa Co.....M. NATHAN
 SANTA ANA.....B. F. CHITTON
 SANTA JOSE, Santa Clara Co.....E. B. WRIGHT
 SANTA ROSA.....C. A. LEWIS
 STOCKTON.....W. H. ROBINSON
 WINDSOR, Sonoma Co.....LINDSAY & WELCH
 WOODLAND, Yolo Co.....E. BEEG
 HONOLULU.....J. M. OAT, Jr., & Co

FRIDAY.....OCTOBER 8, 1886

NEW ZEALAND

Loan and Mercantile Agency

COMPANY.

(Limited.)

CAPITAL - - - \$17,500,000.
 RESERVE FUND - - \$1,325,000.

SAN FRANCISCO OFFICE,

314 California Street.

Receives CONSIGNMENTS for sale in AUSTRALIA and NEW ZEALAND. COLLECTS Bills and buys and sells EXCHANGE on those Colonies. Orders for Australian SEED WHEAT, New Zealand ORCHARD and RYE GRASSES, etc., etc., promptly executed.
 WALTER F. LAWRY, MANAGER.
 HERBERT FOLGER, Accountant

RANCH SUPERINTENDENT.

MARRIED MAN WANTS EMPLOYMENT. IS competent to take entire charge of large enterprise in orchard or vineyard, or general farm; understands wine making, also plain surveying. Wife most excellent housekeeper.

Address
 FELIX PAUL,
 Care S. F. MERCHANT.

AUSTRALIAN AFFAIRS.

The New Zealand Loan and Mercantile Agency reports trade in Australia as being a shade more satisfactory, for though the volume of transactions was not large, there was a feeling of increased confidence pervading commercial circles. An advance in wool of from 15@20 per cent was welcome news, inasmuch as it encouraged pastoralists and gave increased security to financial institutions that an all-round improvement in trade would supervene. Bankers and merchants had been acting with extreme caution. The rains that had fallen were so heavy, in some parts, that floods succeeded the drought and shearing had been hindered. British financial institutions are making large advances with great advantage to themselves. Salmon had advanced somewhat, but the market was without speculation. California flour in quarter sacks had been placed at £11 per ton, but the smallness and tenderness of the packages is a serious drawback, consequently but little flour finds its way inland. Three wheat cargoes had arrived from San Francisco. The first was stored as it received no satisfactory offer. Another, being imported on account of several millers, went

into direct consumption. The wheat market generally is somewhat weak, and several cargoes purchased for the Melbourne market will probably be realized in Sydney, as the Victorian Government refuses to permit imported wheat to be gristed in bond.

TRADE WITH THE COLONIES.

Among the passengers by the Royal Mail Steamer, Alameda, that arrived last week from the Colonies, was Mr. C. W. Griffin, the United States Consul at Sydney. Mr. Griffin has proceeded to Washington, one of his objects being to obtain additional clerical assistance for the office of his Consulate, the trade between the United States and Australia having of recent years increased to such an extent as to entail a very large amount of extra work. Another object is to furnish additional information to the Government at Washington respecting colonial products, and more particularly to point out the injustice of taxing the raw products from New South Wales, the tariffs of the two countries being hostile. Mr. Griffin intends to lay particular stress on the wool duties, a bill for the abolition of which was recently nearly passed in the House of Representatives, being lost by the exceedingly small majority of 17. In carrying out this mission, Mr. Griffin will do good service not only to the Colonies, but also to the manufacturers of woolen goods in this country. Notwithstanding the opposition that has been made to any reduction in the wool tariff which would discriminate in favor of Colonial wools imported into this country, it is now the general opinion of manufacturers, both here and in the East, that a reduction in the tariff on wools would be decidedly advantageous. There are certain grades of fine wool grown in the Colonies that we do not produce and which are essential, in the manufacture of a certain class of goods, for mixing with our coarser grades of wool. But the tariff as it now stands precludes any such importations. If the duty on these grades were reduced, an impetus would be given to the woolen manufacture, and a class of goods would be turned out which we are at present unable to place upon the market. The manufacturers, here and in the East, after carefully studying the question, have come to the conclusion that it is most desirable to permit a discrimination in tariff on these grades, and that this would not only stimulate the manufacturing industry, but it would also be advantageous to the wool grower, inasmuch as it would create a more active demand for those grades of wool that we can grow. Any experiment, moreover, in this direction that would tend to the manufacture of a quality of woolen goods superior to those that are generally turned out in this country, would be well worth trying. It is surely better to allow the raw product to come into the country duty free, and be here manufactured, than it is to import from foreign countries, as we have to do at present, the best quality of a material which is an every day necessity.

In a recent report, drawing attention to the increasing trade between Sydney and the United States, Mr. Griffin mentions the following facts: The export of coal from Sydney from the 1st of January to the 30th of June, 1886, amounted in value to £52,507 4s 1d against £17,714 5s 9d for the corresponding period of 1885, thus showing an increase of £34,792 18s 4d. Wool in-

creased during the same period, from £959 12s 5d to £5,531 17s 4d. Tin increased from £55,136 5s 3d to £84,782 9s 1d. Hides and skins increased from £1,303 16s 9d to £17,672 10s 8d, an increase of £16,368 13s 11d. The exports from Newcastle also show a heavy increase. The coal exports to America from that port for the first six months of the present year amounted to 93,625 tons, valued at £50,467 11s 8d, against 56,357 tons, valued at £33,519 for the corresponding period of 1885.

BUSINESS DISCOURAGEMENT.

In a commercial city of the size and importance of San Francisco, every facility should be accorded to men of business to transact their affairs speedily and conveniently. In no department of the Government should such assistance be rendered, to effect such an object, as in the Custom House department. It should be the desire of the officials there to endeavor to extend our transactions with foreign countries rather than to throw obstacles in the way. Especially should this be the case when there is no reason to suspect a firm or corporation of dishonest transactions or a desire to evade the laws and regulations of the port.

But Judge Hager seems to think otherwise, and his legal knowledge assists him in attaining that end. Complaints are rife, throughout the city, of obstacles being placed in the way of the transaction of business at the Custom House under his regime. A case in point has recently occurred. He has unearthed a legal technicality that has proved to be of the greatest possible annoyance. He has ruled, temporarily at least, all foreign corporations out of business. On a mere quibble he has reversed the customs in vogue for years past, and declines now to permit any foreign corporations, doing business in San Francisco, to enter their goods at the Custom House unless the bills of lading are made out to the order of a resident individually. That resident may be the manager or agent for the foreign corporation, yet, in his official capacity, he cannot do what he is permitted to do privately.

The thing is a farce. No principal is involved, but a sudden order is issued that causes considerable trouble and possible loss to our business men. The usual method of entering goods here is suddenly found to be illegal, and, without a moment's warning, foreign corporations are prevented from receiving their goods that have already arrived in port, and will doubtless have some trouble with those that are on the way. If any change in the form of bill of lading is to be made, then due and timely notice should have been given in order that the correspondents of these foreign corporations in other countries might have been notified of such change. There is no suspicion of fraud or dishonesty and no real reason that would justify the action in question. It is a high-handed proceeding, a show of authority which should not be permitted. There is no serious question involved. It is a mere technicality. A man as agent or manager of a foreign corporation cannot endorse a bill of lading; but the same man in his private capacity can do so. A foreign corporation is held to be non-resident, but the individual is a resident even though he be a foreigner. Foreign corporations invest capital here and trade under the laws of the State, yet they are

now unable to enter their goods and pay duty on them at the Custom House until the order of the collector can be transmitted to their correspondents abroad.

Granting that the new reading of the law is correct, then due notice should be given before it is enforced, as it has remained a dead letter for so many years. It should not affect freights in port or on the way for a mere gratification of a little legal learning. A little learning is a dangerous thing. Nobody will or does object to the enforcement of the law, but business men expect, and have a right to expect, that a broad and liberal view should be taken of this trouble. Common sense indicates the injustice of the sudden enforcement of the collector's order, without notice. Justice demands that due notice be given before it be enforced. There are many democrats in our business circle who do not approve of the puerile play that is being acted. Other complaints of Custom House affairs in this city are numerous. The only possible palliation offered is that Democratic power will be short-lived and must make itself felt, that it may be remembered hereafter. The sooner the hereafter, the better.

OUR WINE EXPORTS.

We continue the publication of the figures of exports of California wines for this year, and are pleased to note that the increase, already reported during the first half of the year, has been maintained in the months of July and August. While the overland movement continues to grow, in comparison with that of last year, the exports by the Panama steamers continue to decrease. Other sea shipments, however, are still on the increase, especially to Honolulu, where there seems to be a considerable demand for California wines of all grades.

For the first eight months of this year we have an increase in our wine exports of 1,118,666 gallons. The overland trade can be credited with an increase of more than 1,250,000 gallons, while the Panama steamer business shows a loss of more than 180,000 gallons. Other sea shipments, however, have increased by more than 40,000 gallons. All things considered, there is no cause for complaint in a comparison of the business transacted this year and last.

The exports in July and August were as follows:

OVERLAND.			
From—	July.	August.	
San Francisco.....	210,012	262,739	
Los Angeles.....	12,601	16,789	
Sacramento.....	4,070	12,989	
San Jose.....	323	3,710	
Oakland.....	45	79	
Stockton.....	328		
Total gallons.....	227,377	296,306	

SEA SHIPMENTS.			
	Panama steamers—	Miscellaneous—	
	Gallons.	Value.	Gallons. Value.
July.....	19,548	\$11,589	13,791 \$7,761
August.....	21,331	8,988	11,979 9,699

A comparison of the trade in the first eight months this year and last, is seen by the following tables. Thus:

EIGHT MONTHS' EXPORTS.			
	1885	1886	
Overland.....	1,932,470	3,189,808	
Panama steamers.....	698,299	515,977	
Other sea shipments.....	68,246	111,896	
Total gallons.....	2,699,015	3,817,681	

If the average of the past two months be maintained during the remainder of the year, then the total wine exports in 1886 will just reach 5,000,000 gallons, a very respectable showing for so young an industry.

NEW ZEALAND FORESTS.

In a report to the New Zealand Government, upon the forests and timber industry of that Colony, Professor Kirk, Chief Conservator of State Forestry, says that in Southland there are still 312,467 acres of virgin forest out of 345,197 reserved by the Crown. The area already denuded by sawmills is 32,730 acres. There are 36 sawmills in operation, employing about 700 men, the average weekly expenditure for wages being £1,200, or about £65,000 per annum; the total output being estimated at 24,000,000 superficial feet of inch thickness per annum. The quantity of timber shipped from Southland ports coastwise during the year ending 31st March, 1885, was 1,659,038 superficial feet; to foreign countries, 1,107,874 feet. The total area of forest land granted for sawmill leases during the three years ending 30th September, 1886, is 5,901 acres, so that including the mills working on private land, over 200 acres of forests are denuded yearly in Southland alone.

Otago has an area of 13,759,000 acres Crown lands, of which the area of really good forest will fall below 1,000,000 acres. Eleven sawmills are in operation in the district. The total number of men employed is stated to be 101, and the annual output slightly exceeds 7,600,000 superficial feet. Licenses in Otago are granted for sections of 100 acres, at the rate of £1 1s per acre, payable in three annual instalments. Licenses are granted to split and cut firewood, fencing, etc., on sections 200 feet square on payment of £2 10s per annum.

The proportion of forest land in the Government district of Canterbury is less than in any other part of the Colony, large portions of the district being absolutely devoid of trees, except where small plantations have been made by settlers. The district has an area of 8,693,000 acres, of which 374,360 acres are considered to be more or less clothed with forest, but as the chief forest areas are situated in mountainous country, the quantity of timber available for the purposes of sawmills is extremely small. No timber is being cut in State forests in Canterbury under license at the present time. The land is sold at £2 per acre, including timber. Twenty-one sawmills are in operation, and the average output of each is less than 500,000 feet per annum, the total not exceeding 9,893,000 superficial feet.

The area of Westland is estimated at 3,045,000 acres, of which 1,897,558 acres are covered with splendid forest still in the hands of the crown, in addition to 632,519 acres of lowland scrub or interior forest. The actual output at the present time exceeds three million superficial feet.

The area of the provincial district of Nelson is estimated at 7,000,000 acres, the forest lands still in the hands of the Crown comprising an area estimated approximately at 3,290,000 acres; but this quantity includes good mountain forest, scrub and patches of timber in gullies, etc., so that it is extremely difficult to form an approximate estimate of the average of timber available for profitable conversion. In all probability it will not exceed 1,000,000 acres. Twenty-two sawmills are in operation in the district, and afford employment to 130 men and boys. The total output is stated at 5,360,000 superficial feet.

Marlborough has 2,560,000 acres, one-fifth of which is covered with forests of varying quality. Fourteen sawmills are in operation in the district, and afford employ-

ment to 175 men and boys. The annual output is estimated at 8,606,340 superficial feet. Most of the forests near the sea are practically worked out.

The provincial district of Auckland comprises 17,000,000 acres, and includes the most valuable forests in the colony. The area covered by forest is estimated by the chief surveyor to contain 7,200,000 acres, of which about 1,606,350 acres—including the reserves—are still held by the Crown. A remarkable feature of the forests of the Northern District is that while they possess timber trees not found in any other part of the colony, they comprise as well all the kinds found in the other provincial districts. The kauri is by far the most valuable timber tree in the colony. For good continuous kauri forest, 20,000 superficial feet per acre would be a rather low average, but much of the land classed as kauri forest may have only one or two trees per acre—equivalent, say, from 3,000 to 5,000 superficial feet.

The total value of timber exported from Auckland is returned at £135,952 or more than five times as much as all the rest of the Colony put together. The Auckland sawmills must be classed amongst the best in the world. The largest are considered to be unequalled in the southern hemisphere. In one or two cases employment is given to nearly 500 men and boys, and the annual output of each is stated to exceed 8,500,000 feet per annum. At the present time there are numerous mills with an output of 5,000,000 feet and upwards. One mill, with an annual output of 500,000 feet, is stated to have sufficient timber to last for over 30 years, but this is an exceptional case. With possibly two exceptions, all large mills have sufficient standing kauri to keep them going for the next 12 or 15 years at least at the present demand.

OUR HAWAIIAN TRADE.

As the year progresses, the increase in our trade with the Hawaiian Kingdom continues. The third quarter of this year shows a marked advance in our export statistics, as supplied by Consul General D. A. McKinley. And this growth has been steady throughout the year, the second quarter showing an increase of \$45,000 over the first, and the third showing an increase of \$65,000 over the second and of \$110,000 over the first. The largest movement was during the month of August, the exports then exceeding \$300,000. In September there was a decline to \$258,355.91 owing to the irregularity in the departure of the steamers, consequent upon the necessity for their being overhauled and the removal of the Mararoa from the Australian mail service route in order to make room for a larger and more commodious steamer. The outlook for the remainder of the year is encouraging, and we anticipate a total export trade to the Islands, during 1886, of over \$3,000,000. The exports in September stood thus:

How admitted—	Value.
Free by Treaty	\$197,374 68
Dutiable	59,149 97
Free by Civil Code	1,831 26
Total	\$258,355 91
For the nine months just ended, the exports were as follows:	
First Quarter	\$708,839 17
Second Quarter	753,971 18
Third Quarter	518,031 80
Total	\$2,280,842 15

This total is arranged under the following classification, which shows the value of the goods that are free by terms of the Treaty with the United States. It will be seen that they represent nearly four-fifths of the whole. Thus:

NINE MONTHS' TRADE.

How admitted—	Value.
Free by Treaty	\$1,743,696 87
Dutiable	505,379 00
Free by Civil Code	31,169 28
Total	\$2,280,842 15

The bulk of the dutiable goods consists of foreign manufactures that are re-exported from this country. Among those that are free by Civil Code are mainly articles of American manufacture that are classified specifically, showing what are directly imported by the Hawaiian Government for the use of its several departments. In this connection it is satisfactory to note from our last month's wine table, published elsewhere, that, out of 5,775 gallons exported by sea, no less than 4,778 gallons were shipped to ports in the Hawaiian Islands.

ANCIENT VITICULTURE.

Baron Felix von Thumen of Gorizia, Austria, will pardon that we translate for our readers some of his elegantly written sketches of ancient viticulture. It would surely be a pity to withhold the learned gentleman's extremely interesting writings in the technical press of Austria, and reproduced in other countries, which will please and instruct everyone. Some thousand years ago the art of vinification and handling wines was practised in a manner which may astonish people in our modern and civilized time. Wine makers were, if in a less scientific manner, in those dark ages, pretty well up to all the tricks of the present time. The handling of wine was an "art" then as now. Numerous authors wrote on the subject. Euphronius, Aristomachus, Commiades, Hiccius were oenologists in their way. Their books are mostly lost, and we possess chiefly in old Pliny the records of ancient times which show the manner of acting of wine men. Caius Plinius Secundus in his extensive historical naturalis treats on that head largely. Earthenware jars were the vessels in use in ancient Roman days. As a matter of curiosity Pliny mentions that on the foothills of the Alps wine was preserved in wooden vessels; these vessels were surrounded by iron hoops. In winter the wine was kept from freezing by fire. Still, sometimes the hoops would break and the wine would be solid ice.

Baron von Thumen possesses four "vases" of earthenware which were dug up from the ruins of Aquileja. These were in use in Italy—magnus was vinarium and Cadus were their names—about three feet high, of the shape of an urn, at the foot pointed and made of burnt clay. They were dug partly or entirely into the ground, in some places without, in others with a roof over them.

Pliny observes that one side of a wine cellar should be situated with openings towards the north. Dung heaps and roots of trees should not be tolerated near the cellar. All strange smells which a wine easily assumes, should be kept away. No fig trees, wild or cultivated, should be in the immediate vicinity of the cellar. Space should be allowed between the "vases," as one spoiled wine would infect another near it. The shape of the jars was considered of importance for the keeping quality of the wine in them. Jars of a big belly were unfavorable for preserving the wine in. At the beginning of the canicula all jars should be closed hermetically with pitch, then covered with ashes or clay, well wiped and the cellar be smoked with myrrh. Weak wines should be put in jars which were dug into the ground, strong ones be kept above

the ground. Respecting ullage, Pliny relates that the rule was not to fill up, the empty space should receive a mixture, wine of raisins, boiled wine, azarum, old pitch and must thickened by boiling, but not on the mass of the wine in the vessel, but the walls of the latter which were left free. The cover should be smeared with mastic of pitch of Bruttia. Only on clear days, never with southerly winds nor with the full moon, should a vessel containing wine be opened. The "flos" (micoderma covering) on the top of the wine should be white. A red coloring of the flos was a bad sign of the health of the wine. This reddish hue of the flos was considered the effect of great heat followed by cool temperature, when the evaporation from the wine made the cover sweat. A wine which rapidly foamed and had contracted a bad smell would not keep. Boiled must (grape syrup) should not be made on days when the moon was in the sky, nor in copper boilers, but in leaden vessels which did not admit the hurtful smoke, and some walnuts should be added. The best wines of Campania were exposed to the influence of the sun, the moon and the rain.

For the perfect preservation of wine, gypsum was considered an improvement. Ashes from vine branches or oak were also used for that purpose. An addition of sea water was another means of improvement of wine. That water to be fetched from the high sea in time before the spring equinox or when N. N. E. winds blew. When the water was to be fetched in vintage time, it had to be boiled. To the fermenting must pitch was added to communicate its smell. The wine obtained a sharper taste, but was rendered soft and less intoxicating. This addition of pitch (crapula) was supposed to prevent refermentation. Wine that was spoiled by refermentation was called "vap-pa," an epithet also for a person of spoiled mind.

A wine being neither such, nor must thickened by boiling, was called "aigleucos" or constant must. This liquid was must which, direct from the press, was put in big jars and these placed into the sea, whence they were recovered on the shortest day and the beverage was ready to stand great cold.

Pomace wines, or piquette, too, were made thousands of years ago. Pliny says they could not well be called wines, but were good drinks for the laborers. There were three kinds of piquettes. One was made by adding one-tenth of water to the press wine, then allowed to stand for 24 hours and pressed again. The second class was made by an addition of one-third of water and after thirty hours boiled down to one third its volume. The third class was the pressing from lees, called by Cato lees wine. None of these three wines kept over a year.

Pitch used in wines were in Italy, that of Bruttia from the resin of the red pine. In Asia Minor, pitch from Mount Ida, in Greece, that of Pieros, and, according to Virgil, that of Naricos were of best quality. Black Mastic was added to pitch and also the root and oil of orris plant. Beeswax was avoided in the wine, as it favored acidification.

One-fortieth of ash-s added to boiled wine, or salt or marble dust, was considered a good receipt for improving wine. Of sulphur also mention is made for cellar use. The addition of pomace wine to the juice was also recommended. Through addition of several coloring matters to a wine needing color, it was rendered also "fatter."

Pliny says: So many injurious artifices are applied to wine to make it taste pleasant, that it is often dangerous enough to use such concoctions.

History repeats itself. New York and other adulterators might teach the old Romans many a trick, however.

LOS ANGELES.

Kohler & Frohling's Wine Cellars—San Gabriel Wine Company—Superior Arrangement of Buildings and Machinery—Orange and Lemon Trees—Irrigation.

From Fresno for some miles the plain extends, and the line for miles is a straight one. The ballast is only the earth out of the trenches, and the train in passing along raises clouds of fine dust, nearly smothering the occupants of the hinder cars. Americans—both men and women—provide themselves with linen garments called "dusters," reaching from the chin to the feet, and every one traveling here during summer should take the same precaution. During the night the train passes over a very steep incline, and rises 7,000 feet above the level of the sea in crossing the tail end of the Sierra Nevada chain of mountains. It was here where a fearful accident happened lately to a train which got away from the summit station whilst the engine-driver was off his engine, and after being capsized over an embankment, caught fire and killed and burnt nearly fifty people, so we were glad to be over this part of the line in safety. From daybreak in the morning until nearly reaching Los Angeles the country is a desert, compared with which the country about Farina is a paradise. After a good rest, which we required, for we got very little rest in the train, as it was a hot night and quite stifling in the berths, we visited the cellars of Kohler & Frohling, in the outskirts of the town. As the manager was not in we took a drive round for a few miles—all the way through orchards, orange groves and vineyards. The whole of the land is laid out for irrigation, and there is water, water everywhere—in earthen ditches and wooden flumes, crossing the roads and running alongside them, and in some cases driving wheels of twenty feet diameter to raise water into wooden vats for domestic purposes. The orange and all fruit-trees are trained with a high stem, and generally the land is well cultivated and kept free from weeds. The orange trees generally look very healthy, and of a much darker green in the foliage than they do in New South Wales. We saw some forty-seven year old, and still strong and healthy. The crop is now nearly all gathered and sent all over the country, many of them going eastward even to New York and Philadelphia. The lemons grown here are very fine. Peach trees looked rather scrubby and the fruit small. Pear trees generally well loaded but apples a failure. Returned and found the manager, Mr. Wilhelm Schillings, who kindly showed us round. The vineyard is the oldest in the district, and was planted by Mr. Kohler in 1854. It is only of small extent, and almost wholly of the Mission grape, but large quantities of grapes are bought and made into wine and brandy.

The vineyard is carefully cultivated, and the vines are disbudged, but not topped. They are trained with very high stems, and the stakes done away with, as is the case in all old vineyards. The cellars are extensive, but detached from one another, having evidently been built as the business increased; the oldest cellar is still standing and used as a fermenting cellar.

The newest cellar is a fine building of two stories, the lower one being 20 feet high, and the top one 10 or 11. Here are

two crushing and separating machines similar to those described at Krug's and other places. These machines are supplied with grapes by an elevator to each, and the crushed grapes and juice fall into a tank 10 x 12 and 2 feet deep, fitted with a strainer in the bottom to allow the juice to flow away. The skins are then passed through a hole in the floor and fall into wooden shoots about 11 inches wide and 9 or 10 deep, so arranged as to deliver into any vat in the lower story by means of stops and outlets. The crushed grapes are also taken overhead across the yard into the old cellars through earthenware pipes 9 inches in diameter, and then on to the vats in open wooden shoots with very little fall, but, they say, quite enough to prevent choking.

In 1880, 200,000 gallons of wine and 20,000 gallons of brandy were made; the vintage of 1881 was much less in quantity. Wine of all descriptions is made here. Drank some very fair light red wine; also tasted sweet wines Port and Angelica, both good, but wanting more age. The manager said that many of the small growers use too much water while the grapes are ripening to increase the weight, and when there is less competition for grapes they will try to buy them according to the weight of the must. Having had late rains this year they have not irrigated their vines at all, and they do not appear to want it, having made good growth. The distillery is adjoining the new cellar, and is fitted with a still of wood 20 feet or over in height and about 4 feet in diameter; this is divided into 3 chambers in the inside, and there is also a rectifier or "doubler" alongside. They do not distil the skins, but do it all by washing them with water. We do not see a press on the place. They are just now fixing a 20-horsepower boiler, the old one proving too small to do all the work required in the vintage. The fireplace is arranged to burn oil instead of coal or wood, and if anything happens the fire can be put out in a moment by turning a tap. The cooperage is away at some distance, and three men are busy at setting up 40-gallon casks from staves and heads brought from Indiana. They get 35 cents each for this work. They are filled with wine and brandy here, and sent on to the San Francisco cellars of the firm, which have been already described, and they are then used again for sending out the wines to customers all over the country.

Next day took a coach and driver to the large vineyard of Rose & Stern, at San Gabriel, eight or nine miles from Los Angeles. The country between is rather hilly, but on getting near San Gabriel the land improves, and many orchards and gardens are passed, nearly all of them open to the road. Some of these are irrigated from artesian wells, but the supply from them is limited compared to that got from the hills. We passed several of them. The water is delivered through a six-inch pipe some eight or nine feet above the ground, and falls over into a reservoir. It looks as if it was as clear as crystal and as cold as ice as it flows over the bell-mouth of the pipe. Noticed one that had failed from some cause or another. I noticed that they were watering the orange-trees, all done by Chinamen. They raise a bank between each tree and fill the same with water, which comes from the Sierra Madre Mountains, about four or five miles distant to the foot of them. They profess to water the trees every month during the summer. On our return passed through the village of

San Gabriel and by the old Mission House built by the Jesuits 140 years ago. It is still used, a new roof having been put on a few years ago. About here are a few old adobe buildings, occupied by the remnant of the Mexican people, who are to be seen lying round or propping up the few trees growing about their dwellings. No cultivation or anything but a few old horses—high in bone but low in flesh—tethered or hobbled about. In strange contrast is the flash-looking Yankee beer-saloons and drug stores near them. Returning by another route we came upon the splendid cellars of the San Gabriel Wine Company—a new concern. The wine-house is an immense building of two stories, built of brick made on the place, and is 266 feet long by 186 feet wide. The lower story is thirteen feet high and the top 11, as near as could be judged. This is built on the top of a chalk hill, which is levelled off, and the material used to make a roadway to ascend to the back of the building for the delivery of the grapes. The crushers are two in number, and placed at a distance of one-fourth from each end in transverse roofs made for them above the level of the ceiling joists. The grapes are put into one end of a cylinder, on which are revolving beaters, set specially to carry the grapes forward to the other end, where they fall into a wire cylinder, also revolving, but at a low speed, which separates the stalk and delivers them out at the end. The skins and juice then pass into wooden shoots arranged with a fall of 4 feet in 30 to all parts of the building, and to every vat in it. About half of the bottom floor is already furnished with fermenting vats of 3,000 gallons each; from them the wine, after fermentation, is run off to the cellar through a four-inch galvanized iron pipe. This cellar is about 400 or 500 yards distant, and the top of it is below the level of the bottom of the warehouse. The pipe is carried across on trestles 40 or 50 feet high, and delivers the wine into a tank raised on a platform on the top floor, and from that with hose to any part of the cellar, which is 215 feet long by 186 wide. Already the cellar has, on the bottom floor, 50 oval casks of 1,500 gallons each, all full, and a lot of similar casks stacked about. A branch from the Great Southern Railway is brought in past the cellar, and another to the distillery, which is also built at the foot of the hill, on which the winehouse stands, and is fitted with four stills of the best kind, so arranged that one man can attend to the lot. This building also contains the boilers which supply steam for the stills, and also through a pipe several hundred feet up the hill, and to a crushing apparatus in the winehouse. The skins of the grapes, after the wine is drawn off, are treated with water, and that after fermented, is drawn off into a tank in the middle of the winehouse, from which iron pipes convey it to the top of the distillery. I find that no officer is set by the Government to watch the distillery, but every distiller is required to declare on oath how much he has distilled. The skins, after the water is drawn off, are thrown out of the vats into iron trucks, which run on rails laid all through the building, and through a tunnel cut in the rock at the back, and are shot out over a stage and down the hill. The grapes are all brought up to the top of the hill, which is levelled off to make room for thirty or forty wagons, and high enough so that the boxes of grapes can be handed out of the wagons into the crushers. In this arrangement no elevators are re-

quired. From this platform a splendid view of the estate and the San Gabriel Valley is obtained, and when the whole estate of 1,600 acres is planted, as is intended, it will be a pretty panorama. Already they have 200 acres planted and doing well without irrigation. They do not intend to resort to that if they can avoid it. They have planted cuttings of Mataro, Carignan and Grenache, and other good French kinds 14 or 15 inches in the ground in holes dug with the post-hole digger, and well rammed at the bottom. The land before planting looks very barren and full of hills and hollows, like our Bay of Biscay land. This is levelled with earth-scoops before planting. The land is trench-ploughed 15 inches deep, which I consider quite useless, as the soil seems to be gravely sand with no clay, as far as I could see in the water washes about the place. The planting is rather close, I think—6 feet x 6 feet—but I am not quite sure about the distance. The secretary and manager were away at the time of my visit, but an old soldier attached to the Customs or Distillery Department took us round, and I afterwards saw the secretary, Mr. Fred Wood, in Los Angeles and he kindly gave me much information. Mr. Wood was the architect of the whole concern, and the arrangement of it all is at the top of everything we have yet seen, and reflects infinite credit on that gentleman. Mr. Walker is manager, and Mr. de Barth Shorb president of the company, who only commenced operations in May, 1882, and in September had the place ready to receive grapes and make wine. The whole of the bricks and lime were burnt on the place, and everything appears to be done to stand, and no cracks or faults are to be found in any of the buildings. No fencing is done, as the law allows damages to be claimed for trespass on other lands. We shall be glad to hear of this spirited undertaking succeeding well, both for the shareholders and the country at large.

O Sheol!

[New York Wine and Fruit Grower.]

A wine-selling parson signing his name Rev. P. Anstadt, and hailing from somewhere among the pine woods of Pennsylvania, has sent us a book of seventy-nine pages, wherein he has attempted to show that there were two kinds of wine in the Bible, and it was the unfermented wine that was used by the pious of ancient days, and that the fermented wine was condemned. The reverend gentleman wants a notice of it, and the favor of a copy of the paper containing the same. Not having time to read everything that drops on our table, we handed this to our "devil" to keep him out of mischief. Soon after we heard the remark, "O Sheol! shoot the crank." This led us to make a more careful examination, when we were brought to the same conclusion as our devil (minus the profanity). The parson's contention is that the Bible wine (the wine of the Lord's Supper, etc.) was simply a *grape must boiled down*, viz., a cooked grape syrup!! The meat in the cocoanut was found, however, on the first inside page, where Rev. "P. Anstadt & Sons" offer for sale, "for sacramental and medicinal purposes," boiled down grape juice for \$10 per dozen!! From such beverage, from such hypocrisy and pious fraud, good Lord deliver us.

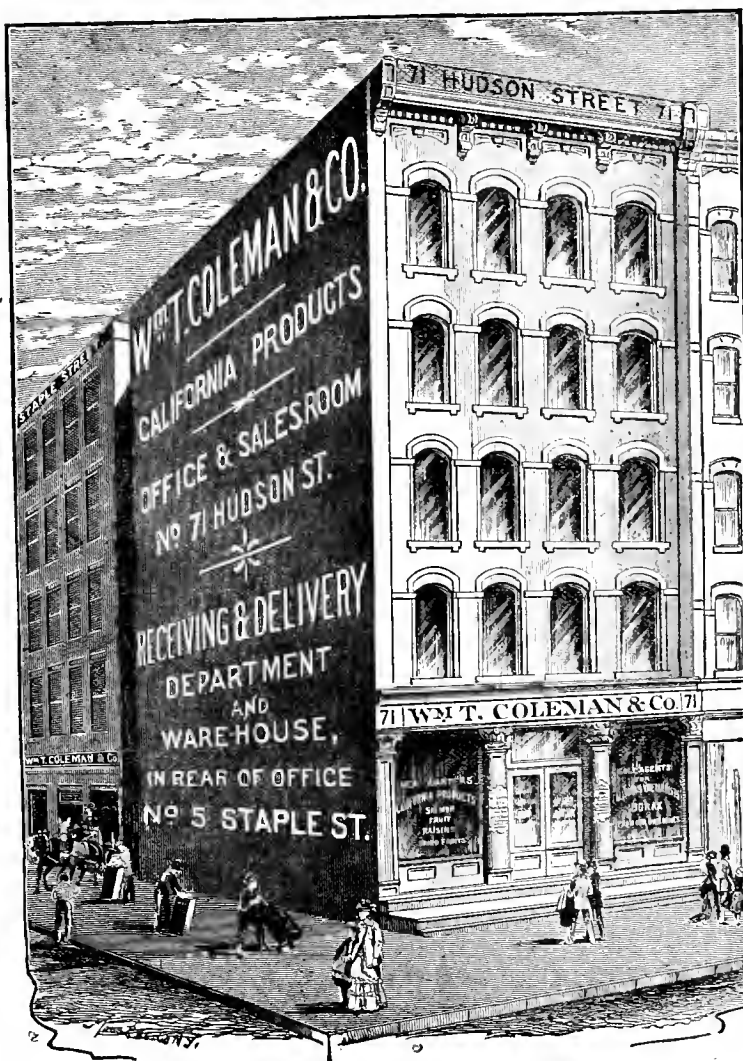
Subscribe for the MERCHANT.

CALIFORNIA WINES AND BRANDIES.

San Francisco,
121 Market Street.

Astoria, Oregon,
Flavel's Wharf.

Chicago, Ill.
91 Michigan Avenue.



New York,
71 Hudson Street.

London,
4 Bishopsgate St.,
within E. C.

Liverpool,
54 Drury Buildings.

WM. T. COLEMAN & CO.
71 HUDSON STREET NEW YORK CITY.

ALSO AGENTS FOR
ALCOHOL, WINE AND SPIRITS.

The National Anti-Saloonists.

Wine and Spirit Review.

The political event of the past fortnight, which has probably attracted the largest share of public attention, and certainly the attention of our trade, has been the assembling at Chicago, that city of conventions, of a body of cranks and fanatics calling themselves Republicans, and being in fact conspirators against that party in having attempted to devise ways and means of committing it to a policy which would drive out of its ranks every friend of personal liberty in the land. We refer, of course, to the so-called National Convention of Anti-saloon Republicans.

Perhaps there is no better guide for gauging the significance and influence of any public gathering than that of considering the character and personal peculiarities of its leading spirits. And what an array of personal ciphers we have in this instance, what a conglomeration of impractical reformers, political hacks and broken-down and besmirched office-hunters, while the whole list of delegates does not embrace the name of a single member of the National Republican organization of prominence or influence in that party! Indeed, we may congratulate that party upon the conspicuous absence from this convention of its brains, its statesmanship and its political cunning. We have only to look at the two chairmen to sample and judge the whole lot.

Here we have Granny Blair, of New Hampshire, the old lady-impracticable of the United States, as temporary presiding officer, followed by that illustriously-soured and stampeded fraud, Window of Minnesota, who has better occasion, perhaps, to hate the whisky trade than any man in the country.

To dwell seriously upon what such a crowd did, or proposes to do, would be a waste of time. Perhaps, the most significant utterance of the occasion was that of Granny Blair, who proclaimed, amid interrupting cheers, that, "as between free rum and license, we are for license; as between low license and high license, we are for high license; and, as between high license and prohibition, we are for prohibition." All of which suggests to us the office-hunter, who was willing to take from old Andy Jackson anything from a foreign mission down to an old pair of pantaloons.

This Chicago gathering is neither important nor significant in itself, though it may be in simply what it suggests. If we wait until the national Republican party "takes its cue" from the Windows and the Blairs in its ranks, we shall probably wait a long time. They are not of the right timber to build a great national movement. They are too knotty and cross-grained. It will be observed that they, as well as their co-laborers, are, with hardly an exception, from strongly Republican States, and they are merely political excrescences resulting from the over-growth of their party in these sections. And now, what we may expect to hear of next, is a national anti-saloon convention of Democrats, made up of Democratic cranks and fanatics from the South, where the same kind of political excrescence appears, though under another party growth.

The vintage is progressing very favorably and no trouble whatever has been so far experienced in fermentation.

AGENCY OF

WM. T. COLEMAN & CO.

91 MICHIGAN AVENUE, CHICAGO.

California Products a Specialty.

California

Canned

Fruits.

California

Dried

Fruits.

California

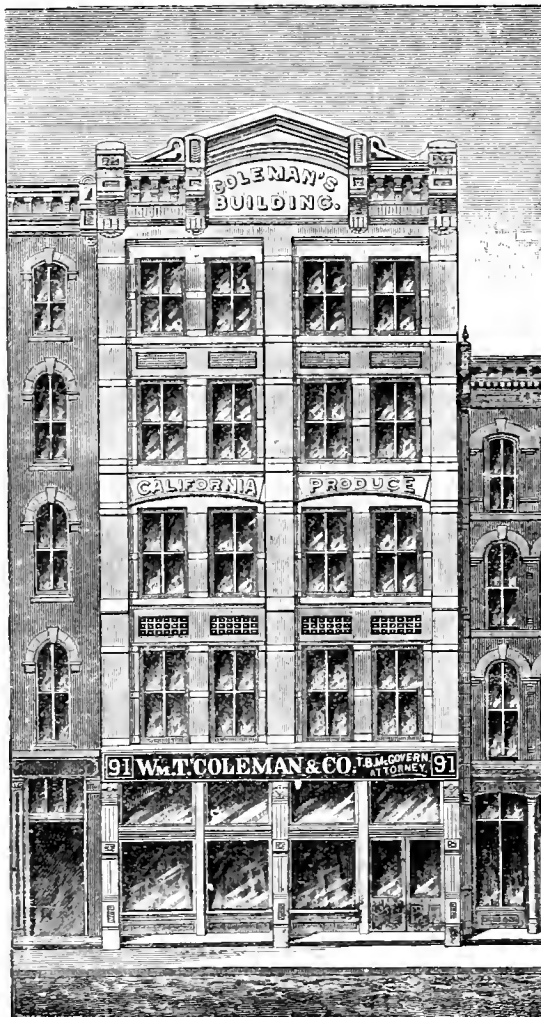
Raisins,

California

Wines,

California

Oranges



COLUMBIA AND SACRAMENTO RIVER SALMON,

—AND ALL—

Pacific Coast Products Suited to Eastern Trade.

CONSIGNMENTS SOLICITED, AND ALL CORRESPONDENCE

PROMPTLY ATTENDED TO.

T. B. McGOVERN, Manager.

QUICK TRAVEL.

The latest excitement in ocean travel seems to be the desire of the steamers on the Australian line to beat each other's record. A month ago we had the Mararoa arriving here at an earlier hour than ever was known, while this month we had the Alameda alongside the wharf some three hours earlier, although she was detained four hours in Auckland, and waited in Honolulu five hours longer than the Mararoa. This makes the Alameda's actual steaming time twelve hours less than that of the Mararoa. Both vessels have done excellent work and it now remains for the record of the American steamer of the Oceanic Company to be lowered by another competitor. This month will again see the New Zealand mails delivered in London in thirty-two days. The effect of this quick communication has been to attract considerable attention to the San Francisco service, which will probably result in a livelier passenger movement in our direction.

An Intercolonial Exhibition.

At a meeting of the Victorian vine grower Mr. H. M. Gooch moved

"That this association ask the co-operation of the Chamber of Manufactures and other kindred associations in holding an intercolonial exhibition in November and December next in Melbourne, and furthermore that a sub-committee be formed, consisting of Mr. Joubert, Mr. A. H. L. Browne, Mr. J. A. Panton, and the mover and second of the resolution, to arrange matters in connection with the movement, and to report to the council."

This was seconded by Mr. R. S. Walpole. In speaking to the motion, Mr. Gooch stated he thought the exhibition would result in great good to the Association. About twenty gentlemen had given in their names as guarantors, and he felt sure that with good management a fair revenue might be obtained. The object would be to provide the nucleus of a fund for a wine hall. If the manufacturers and engineers joined in the movement, the money might be applied to the erection of a building which would serve the purposes of a wine hall and technological and engineering schools.

The area under cultivation in vines in the Colony of Victoria is 9,775 acres. There are 1,123 grape growers. Eight thousand tons of grapes are used for wine making and produced rather more than 1,000,000 gallons of wine and 3,875 gallons of brandy. Two thousand tons of grapes were used for other purposes. This gives an average of a little more than one ton of grapes to the acre.

Raisins.

(Daily Report.)

As the new vineyards come into bearing the raisin crop will increase to such proportions that California will be able to supply the entire market of the United States. Last year the exports from the State amounted to 3,982,870, an increase of 2,228,820 pounds for the year. Our raisins are coming into general use in the East and Canada, and in spite of the immense yearly increase, the crop finds a ready market. With the present tariff upon imported raisins, in spite of the difference in cost of labor, the California grower can compete successfully with the imported article if his profit is not eaten up by freight rates. The importance of the recent reduction is therefore apparent, and cannot fail to stimulate the industry throughout the State.

It may be remarked here that those who predicted that Senator Stanford would not grant the request of the raisin growers did not know the friendly interest Senator Stanford has always taken in the Fresno region. It was fifteen years ago when Jeff Shannon asked him where to settle. Stanford took a map and pointed to that part of Fresno county between the San Joaquin and King's rivers, telling Shannon to settle there, where the snows of the Sierra Nevada range would be an everlasting reservoir for irrigation purposes, and added that irrigation would make Fresno one of the richest counties of the State. It was therefore not only with the readiness of enlightened commercial enterprise, but with the pleasure of a prophet who is seeing his predictions fulfilled, that Senator Stanford proceeded the other day by reducing freights to open Eastern and Canadian markets to Fresno's increasing raisin crop. Stanford's marvelously shrewd forecast, and sound and solid business judgment have been shown in a hundred striking ways within the past few years, but in no direction more remarkably than in the skillful manner in which his railroad system, as it approaches completion link by link, opens up new and valuable districts and markets for their produce, and steadily but surely advances the prosperity of the whole State.

The arrivals of new Muscatel raisins in the London market have been limited and buyers have hardly yet turned their attention to the fruit, the chief enquiry coming from exporters for small packages. Very low prices are ruling for Sultanais. It is probable that the prices of California raisins this season will rule much lower than last owing to the large increase in the pack.

Subscribe for the MERCHANT.

The grape-growers in the immediate vicinity of Los Angeles city have learned this season that more wineries are an absolute necessity to them, and they must be provided in the future if they would make a profit from their crops. The bulk of the grapes grown around this city are not suitable for shipping East as table grapes, and are not fit for raisins, even if the climate here permitted of successful raisin making. In order, then, to make sure of a profit in future years a number of small wineries must be erected, and one or two large distilleries for converting the Mission grape into brandy, would also be profitable. By prompt and concerted action they are saved from loss this year, but must look out for the future.—*Rural Californian.*

L. LANDSBERGER, HENRY M. LANDSBERGER

Landsberger & Son,
Commission Merchants,
123 CALIFORNIA STREET
SAN FRANCISCO.

Agents for the Purchase and Sale of Agricultural Products and Vintners Supplies.

CALIFORNIA
Concentrated
GRAPE MUSTS

FOR THE SEASON OF 1886 I WILL CONCENTRATE must of grapes from the celebrated Natoma Vineyard.

THOS. D. CONE.

Manufacturer of California Concentrated Grape Musts

OFFICE—640 CLAY ST., (Upstairs),
San Francisco, Cal.
Works at Homestead, near Sacramento, Cal.

R.H. McDonald, S.G. Murphy,
PRESIDENT, CASHIER
R.H. McDonald Jr.
VICE-PRES
PACIFIC BANK
Oldest Chartered
Commercial Bank
on the Pacific Coast.
Capital \$1,000,000.00
Surplus \$500,000.00
San Francisco, Cal.
July 1st, 1886.

We respectfully invite attention to the statement herewith presented, and beg to say we are pleased with our achievements during the first half of the present year.

It is gratifying to us, also, to state that the results attained are satisfactory to our stockholders. We hope our success will receive the favorable regard of our patrons and friends whose business relations have conducted to enable us to make so commendable an exhibit as the following:

ASSETS:
Bank Premises, . . . \$150,000 00
Other Real Estate, . . . 35,556 27
Land Association, Gas and
Bank Stocks, . . . 31,304 65
Loans and Discounts, . . . 2,378,383 15
Due from Banks, . . . 339,502 11
Money on Hand, . . . 481,805 75
* 63,416,551 96
LIABILITIES:
Capital, paid up, . . . \$1,000,000 00
Surplus Fund, . . . 500,000 00
Undivided Profits, . . . 23,318 71
Due Depositors, . . . 1,241,923 36
Due Banks, . . . 1,111,239 90
3,416,551 96

While returning thanks to our friends for the very liberal patronage during the past, a continuance of their favors is respectfully requested. The regular semi-annual dividend has been declared and a balance of accumulation placed to account of undivided profits.

B. H. McDONALD, President.

CALIFORNIA VINEYARDS.

KRIG CHARLES,
Krig Station, St. Helena, Napa Co., Cal.
Producer of fine Wines and Brandy.

J. C. WEINBERGER, Manufacturer of Wines, near St. Helena.

H. W. CRABE, Wine Cellar and Distillery, Oakville, Napa County.

SAN FRANCISCO WINERY, RUEFF & REIL, Business Proprietors, 116 1/2 Eighth St., S. F., Cal.

PAUL O. BURNS WINE CO.,
Proprietors
YERBA BUENA VINEYARD.
DISTILLERS OF GRAPE BRANDY.

Fine old Mountain, Burgundy, Zinfandel, Riesling, Gutedel, etc., in cases or bulk.

Branch Cellars in San Jose, Cal., U. S. A. P. O. San Jose, Cal.

WM. T. COLEMAN & Co., SAN FRANCISCO, Sole Agents for Chicago and New York

ESTABLISHED IN 1860.

ALL WINE MAKERS

Should drink the

PURE BELMONT

— HAND-MADE —

SOUR MASH WHISKY.

Supplied in lots to suit by

JAMES CIBB, 617 Merchant St.

HERRMANN & CO.,
HOP MERCHANTS.

Importers and Dealers in

CORKS, BREWERS' AND BOTTLERS' SUPPLIES,
SODA WATER AND WINE DEALERS' MATERIALS.

LEX. FRIES' & BROS. COGNAC OILS,
ESSENCES AND FLAVORS.

313 SACRAMENTO ST. San Francisco.

THE RISDON**IRON AND LOCOMOTIVE WORKS.**

Cor. Beale & Howard Sts., S. F.

W. H. TAYLOR, Pres't. JOSEPH MOORE, Supt.

BUILDERS OF STEAM MACHINERY
IN ALL ITS BRANCHES.

Steamboat, Steamship, Land Engines
and BOILERS, High Pressure or Compound.

STEAM VESSELS of all kinds built complete, with
Hulls of Wood, Iron or Composite.
STEAM BOILERS. Particular attention given to the
quality of the material and workmanship, and none
but first-class work produced.

SUGAR MILLS AND SUGAR-MAKING MACHINERY
made after the most approved plans. Also, all
Boiler Iron Work connected therewith.
PUMPS—Direct Acting Pumps, for irrigation or City
Water Works purposes, built with the celebrated
Davy Valve Motion, superior to any other Pump.

Graham Paper Co.
OF ST. LOUIS

W. G. Richardson

PACIFIC COAST MANAGER

No. 529 Commercial St.,

SAN FRANCISCO, CALIFORNIA

TELEPHONE No. 1064.

FIREMAN'S FUND

INSURANCE COMPANY.

OF SAN FRANCISCO, CAL.

	CAPITAL.	ASSETS.
JANUARY 1, 1875.	\$ 300,000	\$ 747,488 45
JANUARY 1, 1880.	750,000	1,160,017 00
JULY 1, 1886.	1,000,000	2,048,842 58

The Largest CASH ASSETS AND INCOME of all the Insurance Companies Organized West of New York.

D. J. STAPLES, President, WM. J. DUTTON, Secretary,
ALPHEUS BULL, Vice-President, E. W. CARPENTER, Asst. Secretary,
N. T. JAMES, Marine Secretary.

OUR NATIVE WINE SHIPMENTS BY SEA.

PER P. M. S. S. CO'S STEAMER SAN JUAN, SEPTEMBER 24, 1886.

TO NEW YORK.

MARKS	SHIPPER	PACKAGES AND CONTENTS.	GALLONS	VALUE
E D, New York	C Carpy & Co	5 half punchons Wine	400	\$300
Total amount of Wine			400	\$300

TO CENTRAL AMERICA.

S & S, Champerico	Schwartz Bros	4 bun les Whiskey		\$66
M M & Co, La Libertad	Hellman Bros & Co	10 ases Wine	50	30
B & O, La Libertad	John T Wright	12 cases Whiskey		96
J & C, Champerico	McCarthy Bros & Co	2 kegs Claret	20	23
Total amount of Wine			70	\$53
Total amount of Whiskey, 10 packages				162

TO MEXICO.

E L, Acapulco	Redington & Co	3 kegs Wine	35	\$60
A L, Acapulco	L F Lastreto	1 barrel Wine	34	19
Total amount of Wine			69	\$79

TO PANAMA.

A H, Panama	L F Lastreto	1 barrel Wine	50	\$40
		5 cases Wine	25	22
Total amount of Wine			75	\$62

MISCELLANEOUS SHIPMENTS.

DESTINATION.	VESSEL.	RIO	GALLONS.	VALUE.
Hilo	Emma Claudina	Schooner	40	31
Honolulu	Wilington	Steamer	2,384	1,979
Victoria	Queen of the Pacific	Steamer	236	113
Honolulu	W S Bowne	Schooner	65	25
China	City of Rio de Janeiro	Steamer	5	6
Japan	"	Steamer	200	116
Vladivostok	"	Steamer	25	25
Victoria	Mexico	Steamer	150	75
Total			3,105	\$2,370

TO NEW YORK—PER STEAMER SAN BLAS, SEPTEMBER 30.

P K, Syracuse	C Schilling & Co	10 barrels Wine	507	\$279
H M T, Brooklyn	"	2 barrels Wine	100	75
Total amount of Wine			607	\$354

TO CENTRAL AMERICA.

D Y A, Champerico	Urruela & Urioste	12 cases Wine	60	\$48
J C, Acapulco	"	26 cases Wine	130	104
"	"	1 keg Wine	26	19
F S, Acapulco	"	4 cases Whiskey		36
"	"	14 cases Wine	74	15
"	"	1 keg Wine	20	39
S C, Acapulco	J H Dickma	1 barrel Wine	60	38
Total amount of Wine			366	\$286
Total amount of Whiskey, 4 cases				36

TO HONOLULU—PER STEAMER AUSTRALIA, OCTOBER 1.

G B	C Carpy & Co	2 casks Wine	130	\$75
A K	Lenormand Bros	5 half barrels Wine	135	101
"	"	3 half barrels Wine	83	58
H J	Arpad Haraszthy & Co	20 10-gallon kegs Wine	200	200
"	"	50 5-gallon kegs Wine	250	250
"	"	5 barrels Wine	241	200
F & P	S Lachman & Co	40 kegs Wine	250	310
G & Co	Napa Valley Wine Co	100 5-gallon kegs Wine	1,000	700
Total amount of Wine			2,289	\$1,894

MISCELLANEOUS SHIPMENTS.

DESTINATION.	VESSEL.	RIO.	GALLONS.	VALUE.
China	Gaelic	Steamer	65	\$39
Tahiti	Tropic Bird	Barkentine	236	111
Victoria	Queen of the Pacific	Steamer	28	28
New Zealand	Mararoa	Steamer	52	48
Total			381	\$226
Total shipments by Panama steamers			1,587 gallons	\$1,135
Total shipments by other sea routes			5,775 "	4,490
Grand totals			7,362	\$5,625

"COGNAC OIL."

[Rodley's Wine and Spirit Trade Circular.]

It would seem that the cup of bitterness which is being meted out to the shipper of genuine Brandy is not yet full. In addition to the difficulties he has to contend with in the prices which he is compelled to charge his customers, he has to put up with the evil results and continual damage that is being done to the reputation of his trade by the fabrications which masquerade under the name of Brandy. Hitherto these execrable concoctions have been manufactured principally in Cognac district, the importers relying on the Charente mark to assist them in their sales. In view of the extremely low quality, if indeed such a term as "quality" is at all applicable, of the cheap importations, we have continued to recommend merchants on this side who are unable to sell high-class Brandy, to buy the best article and make their own blend, the process of which is proportionately cheaper, whilst it possesses the additional advantage that the merchant knows of what his blend is composed. Whether this gradually increasing practice has had any detrimental effect on the demand for "fine Cognac from Charente at 1.9 per gallon" we cannot say, although one is prompted to that belief by the advent in London of one of the essence manufacturers, to whose kind offices, or to those of his fellows, we presume may be traced the characteristic flavor contained in that high-class liquid. The following circular from this gentleman has been recently distributed amongst the Trade, and although it may do no harm amongst the cognoscenti, would, if it fell into the hands of the consumer, put into his mind ideas which would effectually destroy what liking he might have previously entertained for any Spirit passing under the name of Brandy:—

"BUDAPESTH (HUNGARY), March, 1886.

Dear Sir:—I beg to draw your attention to my well-known brand of Hungarian Cognac Oil, of which I am the largest exporter on the continent. The Cognac Oil obtained from Hungarian Grapes are far superior in aroma and power to any other, and having made the production of Cognac Oils, my special study for a number of years, I can confidently recommend my Oils as being the finest, and at the same time most economical, in the market. Overleaf I beg to give a few receipts for the most advantageous use of my Oils, such as my long experience has enabled me to collect. I have established a Wholesale Depot of all qualities with Messrs. —, —, — & —, of —, who hold stock of all qualities, and will be happy to send you samples upon application, and to whom please address all communications.

I am, dear Sir, yours respectfully,

JOSEF v. Wagner."

"Oil of Cognac which consists of the bouquet contained in Wine, imparts the aroma of the finest Brandy to every class of alcoholic beverages. As Cognac Oil is very volatile, it is recommended to prepare a concentrated Essence of Cognac (which keeps for years and improves in aroma like high-class Wines) as follows:—1 part Oil of Cognac. 11 part pure Alcohol. This Essence to be kept in stock ready made and used as required; age improves its quality. For flavoring Wines an Essence composed as follows (the older the better) is recommended:—1 part Oil of Cognac. 10 part Pure Alcohol. 2 part Claret. 3 to 5

ounces to be added to every 100 gallons of Wine.

The following addition is recommended to Spirits:—Brandy—5 ounces Concentrated Essence of Cognac to 100 gallons. Gin, Absinthe, Bitters, &c.—10 ounces Concentrated Essence of Cognac to 100 gallons. Liqueurs of all kinds—3 ounces Concentrated Essence of Cognac to 100 gallons. Fine Alcohol—2 ounces Concentrated Essence of Cognac to 100 gallons. Rum, artificial—1 gallon Essence of Rum. 2 gallons Rum Coloring. 5 ounces Concentrated Essence of Cognac. 100 gallons Spirits of Wine, proof strength. Cognac, artificial—1 gallon Cognac Coloring. 15 ounces Concentrated Essence of Cognac. 15 ounces Oil of Lemon. 2 lbs. Nitric Ether. 100 gallons Spirits of Wine, proof strength. Wine Vinegar—100 gallons Vinegar Essence. 20 lbs. Sugar. 5 gallons Wine. 2 ounces Concentrated Essence of Cognac.

The above proportions are based on my No. "0" Oil of Cognac (the finest I produce). The better the Oil of Cognac, the richer and the more satisfactory the yield."

"Cognac Oil," like most articles of this description, seems to be of a very accommodating character, since it is apparently prepared to "improve" equally, Wines, Spirits or Liqueurs. We have always understood that good Wine needs no bush, and we have no hesitation in reading concentrated essence for bush, and still vouching for the veracity of the proverb. The receipts of artificial Rum and Brandy are in themselves calculated (the latter especially) to make the connoisseur's mouth water at the very thought of such luxuries. The nitric ether alone, taken with a basis of Spirits of Wine, might perhaps form an attractive drink for persons who prefer their beverages "dry," or our Teetotal friends might revel in a non-intoxicant "Brandy," the Spirit being replaced by *aqua pura*. Whether the general public, as a rule, did they know its composition, would be very keen on the "artificial Brandy," we are in very considerable doubt. We presume, however, that Mr. Wagner relies upon ignorance being bliss in this respect. We have, however, before us a copy of a certain Act of Parliament,—the Sale of Food and Drugs, Act 1875,—in which it is laid down (section 6) that "no person shall sell to the prejudice of the purchaser, any article of food or any drug which is not of the nature substance and quality of the article demanded by such purchaser, under a penalty not exceeding twenty pounds; provided (section 8) that no person shall be guilty of an offence as aforesaid in respect to the sale of an article of food or a drug mixed with any matter or ingredient not injurious to health, and not intended fraudulently to increase its bulk, weight or measure, or conceal its inferior quality if at the time of delivering such article or drug, he shall apply to the person receiving the same a notice, by a label distinctly and legibly written or printed on or with the article or drug, to the effect that the same is mixed." Under these circumstances we fear firms using Mr. Wagner's receipt will be required to enter into explanations, and we can fancy the business which would accrue if they complied with the Act. The following label on the bottle should ensure a sensation, even if it did not promote trade:—

"— & Co.'s fine old Brandy. This Brandy is the result of a combination of Nitric Ether, Spirits of Wine, Coloring matter, Oil of Cognac and Essence of

Lemon. Strength 15° under proof."

The House that has undertaken Mr. Wagner's agency holds a high position in the Chemical Trade, and we feel certain do not realize that they are offering unscrupulous persons a medium wherewith to defraud their customers, for it can admit of no doubt that anyone making use of the name would take particular care to keep the fact to himself. Notwithstanding the difficulties connected with the Brandy Trade, we do not think that it has yet fallen on such evil times as to necessitate a recourse to Mr. Wagner and Spirits of Wine. There is of course a quantity of rubbish sent to this country under the name of Brandy, but we are glad to believe that the demand for it has decreased considerably of late. Merchants have already realized the fact that, although it may have come from Charente, this low-class Spirit will not find favor with the consumer, and that a legitimate blend of his own make is far better in the end both for himself and his customer.

Bonfort's Wine and Spirit Circular says: The California wine salesmen are complaining bitterly as to the prospects for Fall trade, but we would suggest that the growers hold a large amount of their stock until it is merchantable. During the rush and boom last Spring, a great many California wines were shipped East which should have had one to three years more maturity before being marketed, and consequently considerable complaint is made regarding California wines.

PACIFIC
Business College,
320 POST ST.
SAN FRANCISCO.

Life Scholarship, \$75.
FULL BUSINESS COURSE.

SIX MONTHS' COURSE, \$75.
Including Shorthand, Type-writing, Telegraphy, Academi: Branches, Modern Languages, and the Business Course.
Send for Circulars.

THE
LOMA PRIETA LUMBER CO.
SUCCESSORS TO
WATSONVILLE M. & L. CO.

HAVE ON HAND A FULL SUPPLY OF THE
following size

GRAPE STAKES,

2X2-4 FEET LONG.
2X2-5 FEET LONG.
2X2-6 FEET LONG.

Which will be sold at reasonable rates.

Address all communications to

LOMA PRIETA LUMBER CO.,
WATSONVILLE,
Santa Cruz County, Cal.

JAMES HUNTER
GAUGER OF WINES AND SPIRITS.
(Established 1851.)
OFFICE—323 FRONT STREET,
San Francisco.

SUBLIMED SULPHUR.

The "SICILIAN SULPHUR CO." continues to manufacture a superior quality of

SUBLIMED SULPHUR.
its perfect purity rendering it particularly suitable for vineyards, market-gardens, laundries, sheepwash, etc. Large stock constantly on hand, for sale in quantities to suit at lowest price.

PHILIP CADIC, Agent.
Office—512 CALIFORNIA ST., San Francisco.

HARD TIMES MADE EASY.

Are you using Wellington's Improved Egg Food for poultry? If not, why not?

EXCELSIOR HOT WATER INCUBATOR.
No lamp. No oil. No expense to run. No watching. Best in the world.

ECC TESTER. Testing six at a time. Quicker and better than one by any other process.

Seeds of Every Variety.
B. F. WELLINGTON,
425 WASHINGTON ST., San Francisco, Cal.

BOSTON BELTING CO.

GOOD HOSE A SPECIALTY.

J. W. CIRVIN & CO.,
24 CALIFORNIA STREET, S. F.

FRAZER AXLE GREASE

BEST IN THE WORLD
Its wearing qualities are unsurpassed, actually outlasting two boxes of any other brand. Free from animal oils. **GET THE GENUINE.**
FOR SALE BY
CALIFORNIA MERCHANTS
and Dealers generally.

GROSSE & CARDNER,
BROKERS IN REAL ESTATE.
Ranches, Residence, Business and Manufacturing Property Bought and Sold on Commission.
And Publishers of "Sonoma County Land Register and Santa Rosa Business Directory."
OFFICE, No. 312 B St., SANTA ROSA, CAL.

E. L. G. STEELE & CO.,

Successors to

C. ADOLPHE LOW & CO.,
COMMISSION MERCHANTS.

Agents American Sugar Refinery and Washington Salmon Cannery.

ANGLO-NEVADA
Assurance Corporation

—OF—

SAN FRANCISCO, CAL.
FIRE and MARINE.

Subscribed Capital \$2,000,000.
OFFICE: 410 PINE ST.

DIRECTORS:

LOUIS SLOSS, J. W. MACKAY,
J. B. HAGGIN, W. F. WHITTIER,
J. ROSENFIELD, E. E. EYRE,
J. L. FLOOD, E. L. GRIFFITH,
G. L. BRANDER, J. GREENBAUM,
W. H. DIMOND.

This Corporation is now prepared to receive applications for Fire and Marine Insurance.

O. L. BRANDER, President
J. L. FLOOD, Vice-President
C. P. FARNFIELD, Secretary
J. S. ANGUS, Assistant Manager

Bankers, The Nevada Bank of San Francisco

E. C. HUGHES PRINTER
511 Sansome St., S. F.

THE
WINE PRESS AND THE
CELLAR,

By E. H. Bonford.

A MANUAL FOR THE WINE MAKER AND THE CELLAR MAN

PRICE, \$1.50.

For sale by

"THE SAN FRANCISCO MERCHANT."

CHOICE
OLD WHISKIES

PURE AND UNADULTERATED.

We Offer for sale on Favorable Terms to the Trade,

CATHERWOOD'S

Celebrated Fine Old Whiskies,

OF THE FOLLOWING BRANDS, NAMELY.

"CRANSTON CABINET"
"A.A.A." "CENTURY"
"OLD STOCK"
"HENRY EULL"
"DOUBLE B"
"MONOCRAM"

VERY OLD AND CHOICE, IN CASES OF ONE DOZEN QUART BOTTLES EACH.

"BRUNSWICK CLUB" Pure Old Rye, And "UPPER TEN."

For Excellence, Purity and Evenness of Quality the above are unsurpassed by any Whiskies imported. The only objection ever made to them by the manipulating dealer being that they cannot be improved upon.

Dickson, De Wolf & Co.

SOLE AGENTS,

SAN FRANCISCO, CAL.

J. N. KNOWLES, MANAGER.

EDWIN L. GRIFFITH, SECRETARY.

ARCTIC OIL WORKS.

MANUFACTURERS OF

Sperm Whale, Elephant and Fish Oils, Skid Grease,

WHALE OIL SOAP.

ESPECIALLY ADAPTED FOR VINEYARDS AND FRUIT ORCHARDS.
OFFICE—28 CALIFORNIA STREET, S. F., CAL.

W. T. Y. SCHENCK,

Sole Agent, Pacific Coast.

"Eureka," "Paragon," "Red Cross" & "Mill"

Brands of

COTTON RUBBER LINED FIRE AND GARDEN HOSE.

Also RUBBER HOSE of Extra Fine Quality. Hose Carts, H. & L. Trucks, Fire Engines and Fire Dept. Supplies generally. Manufacturer of the Celebrated Square Flax Packing, the Best in the world for all Hydraulic purposes.

No 256 Market St., San Francisco.

THE
WINE & FRUIT GROWER.

B. F. CLAYTON,
EDITOR AND PUBLISHER
21 PARK PLACE, NEW YORK.

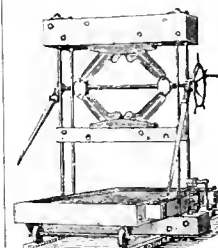
SUBSCRIPTION TERMS

(Payable in advance)

ONE YEAR (Free of Postage)	\$1 00
SIX MONTHS	50
SINGLE COPIES	10
EUROPEAN COUNTRIES	1 50

Subscriptions and advertisements received at the office of the "Merchant."

WORTH'S IMPROVED
PATENT
COMBINED TOGGLE LEVER
—AND—
SCREW PRESS.



I desire to call the attention of wine and Cider makers to my Improved Press. With this Press the movement of the follower is fast at the commencement, moving one and a half inches with one turn of the screw. The last turn of the screw moves the follower one-sixteenth of an inch. The follower has an up and down movement of 2 1/2 inches, with the double platform run on a railroad track. You can have two casks by which you can fill one while the other is under the press, thereby doing double the amount of work of any other press in the market. Model on exhibition at the offices of the Board of State Viticultural Commissioners. Also manufacture Horse Powers for all purposes, Ensilage Cutters, Plum Pitters, Worth's System of Heating Dairies by hot water circulation. Send for circular.

W. H. WORTH,

Petaluma Foundry and Machine Works,
Petaluma, Sonoma Co.; Cal.

Testimonials from I. DeTurk, Santa Rosa; J. B. J. Portal, San Jose; Ely T. Sheppard, Glen Ellen; Kate F. Warfield, Glen Ellen; J. H. Drummond, Glen Ellen; Joseph Walker, Windsor; John Hinkelman, Fulton; Wm. Pfeiffer, Gulesville; J. & F. Muller, Windsor; R. C. Stiller, Gulesville; Lay Clark & Co., Santa Rosa; Vackey, Freres, Old San Bernardino; J. F. Crank, William Allen, San Gabriel; James Finlayson, R. & J. J. Gobb, Healdsburg; W. Metzger, Walter Phillips, Santa Rosa; J. Lawrence Watson, Glen Ellen; Geo. West, Stockton; can be had by applying for printed circulars.

NOTES FROM NAPA.

The following discussion which took place at the last meeting of the Napa Grape Growers' Association was reported by the *St. Helena Times*:

Mr. Estee—Mr. Hardman, how is your crop turning out?

Mr. Hardman—Only middling. But I hear that the production generally is heavier than usual.

Mr. Estee—I don't think we are getting any more to the acre than usual. There are more acres in bearing, however, than most of us thought. In the aggregate the crop is larger than we anticipated.

Mr. McClure—Anduran told me that growers generally are getting more than they expected.

Mr. Estee—Well, perhaps so.

Mr. McClure—Is the phylloxera working in your vineyard?

Mr. Estee—Yes, it is there yet. When a vine dies, however, I at once replace it with a wild Riparia. It is not growing very fast.

Mr. McClure—Is the Riparia an absolute remedy?

Mr. Estee—I am not prepared to say that; but it is the best remedy I know of. I put in the wild Riparia, and as a rule it grows, and grows well. Then I graft other stock upon it.

A member—Would you advise me to prune my vines just after the second crop has been gathered?

Mr. Estee—I never heard of such a thing being done. I wouldn't prune until the frost comes.

A member—One of my neighbors is going to prune when the green leaves are about half off, and I thought if the plan is not injurious to the vines I would do the same way.

Mr. Estee—You ought to prune when the vine is most dormant. That is when the sap has gone down from the leaves and branches to the roots. As long as the leaves are green the vine should not be bled.

Mr. Hardman—The sap in the leaves goes down to make roots, so of course the leaves should not be pruned away until the sap has left them.

Mr. Estee—Of course we know that we prune apples when green leaves are on; but you don't cut off all the foliage in the case of an apple tree, hence the plan is not injurious. This is not true of a vine, for you cut off all the leaves which are the lungs created to drink in vigor from the air.

A member—I know of a man who turned stock into his vineyard last year, right after gathering second crop, and allowed them to eat off the brush. He has a good crop this year.

Mr. Estee—Perhaps, but as a rule cattle and vines don't do well together. In some countries, France and Germany for instance, experienced vineyards put off pruning until late in the Spring, thinking it keeps the vines back a few weeks.

Mr. McClure—Do you think bleeding hurts a vine?

Mr. Estee—Take blood from a man and it hurts him, and the same rule holds good with vines. I prune just before the sap commences to run.

Mr. Fisher—I don't believe bleeding is injurious, save perhaps in seasons when the sap runs most freely.

Mr. Estee—Experienced horticulturists, if they cut a limb off when vegetation is on the tree, wax the wound. This is almost invariably the rule. In fact, they teach their students, that if they haven't wax they should cover it with clay. The same thing applies to vines.

Mr. McClure—How long have you tried Riparia in your vineyard?

Mr. Estee—I have had Riparia for six years. They are now big vines, are bearing and do well. Last season I planted a lot

of them up on that hill of mine and not a vine is missing. I made the cuttings about 36 inches long—like they are made in Europe. You understand that if you order cuttings from Europe they will be made about three feet long. The land is beautiful—I could raise potatoes on it. I dug a ditch about twelve inches deep, put in the cuttings and staked them. Not one of the lot is dead, and they made from six to twenty-four inches of wood this year.

Mr. Fisher—How does the California stand the phylloxera?

Mr. Estee—It can't stand it. The wild Riparia resists the phylloxera for the same reason that a Monterey cypress will live without irrigation. The Riparia root is tough and hardy. Its fibre is close.

Mr. McClure—Isn't it possible that in the course of fifteen or twenty years, cultivation will cause that hardy nature to grow out of them?

Mr. Estee—Possibly; but if they last ten, twelve or fifteen years, that will be longer than any other will last.

Mr. Fisher—I suppose they, like other vines, trees, etc., will have to be renewed occasionally.

Mr. McClure—I don't believe a wild vine will ever run out.

Mr. Fisher—I think they will.

Mr. Estee—They may not if left wild. But they are not placed by us in the situations their wild nature demands. In their wild state you always find them skirting running water.

Mr. McClure—I know of a wild vine which has not perceptibly changed during the last sixty years.

Mr. Fisher—Prune and cultivate it and it will change.

Mr. McClure—Some people say vines are being killed by overbearing. Now that vine was always as full of fruit as it could be.

Mr. Estee—I think it is a question of supply and demand. Give the vine necessary nourishment by renewing the soil, and you can hardly make it bear too much; but impoverish the soil and the vine will become diseased if you make it bear much fruit. We may as well own up to it, we are not just to our vines. We buy land on a hillside that has been run out raising grain, plant vineyard on it without manuring at all, and leave the vineyard no show to thrive. If we take new land on which the vegetation has been failing for centuries, the vines do well enough. The inference is plain.

Mr. McClure—If we put vines sixteen feet apart, in ten or fifteen years we will get more grapes, larger berries and not be troubled with phylloxera.

Mr. Estee—Probably. But I can't see that we want more grapes to the vine. In Europe at vineyards which have won fame, they don't want a vine to bear more than three, four or five pounds to the vine. Where we overbear, we don't get the higher essences that give character to wines.

Mr. McClure—We have sugar enough.

Mr. Estee—But there are other things beside sugar needed in a good wine grape. If there were not the valley grape raised on rich land would be as good as our hill grapes. Sugar in a grape does not depend upon the peculiar adaptability of a soil to produce a good wine grape.

Mr. McClure—Have you seen the new moth catcher?

Mr. Fisher—Yes, it is not worth a cent.

Mr. Estee—I have let the codlin moth take possession of my apple trees.

Mr. Fisher—Our orchards want especial care. Latterly the moths have been more numerous than last year.

Mr. Estee—That can hardly be possible. Speaking of fruit culture, I was up to Humboldt last week. They have a remarkable country up there for certain kinds of fruit. I saw apple trees laden with fruit, the most beautiful you ever saw. The trees were in a meadow which hadn't been plowed this year—perhaps not for five years. Of course it is no place for grapes.

Mr. Fisher—Apple trees want considerable moisture about the time the fruit is maturing.

Mr. Estee—The only way to get rid of the codlin moth is to pick off and destroy the little green apples. You get them then for they must live in the fruit. They claim that the moth stings the apple, and the worm which is generated goes to the core. When it is three quarters of an inch long

it comes out, and if the apple don't fall, which is often the case, it spins a web, like a spider does, and in the evening goes down to the ground and makes for the tree. It is remarkable that it invariably goes to the tree. It would be a good thing if the Legislature could pass and enforce a law prohibiting the return of boxes entirely.

Mr. Fisher—What is our Fruit Inspector doing?

Mr. Estee—Well, he draws \$250 a month and I guess that keeps him pretty busy. But I really oughtn't to say that, for he is probably attending to the duties of his office as well as he can.

Mr. Hardman—Have you got rid of the scale in your orchard?

Mr. Estee—Oh, yes. You can clean the scale-bug easily enough. I used lye, applying it with a pump. The wash killed some trees, though. I used one pound of concentrated lye to a gallon and a half of water. Some of my trees were of a walnut color and seemed about ready to die, but they have come out and did well.

Mr. Hardman—Mr. Thompson, how is your crop turning out?

Mr. Thompson—Light. In fact, 100 tons less than my lowest estimate.

Mr. Estee—I have been experimenting in fermentation. I took grapes running 22 of sugar and placed their must in tanks at different depths, ranging from two feet to four. The must placed but two feet deep gave the best fermentation.

Mr. Thompson—What time is occupied in fermenting a tank of must if all goes well?

Mr. Estee—I never want a claret grape to ferment under seven days.

Mr. Thompson—It can hardly ferment more rapidly, anyhow.

Mr. Estee—Oh, yes it can. Where fermentation is very rapid, the heat is too intense.

Mr. Thompson—You say you find fermentation best when the must is shallow. If we were to use shallow tanks we would have to increase the number of our tanks.

Mr. Estee—Certainly. I am advocating the making of good wine, not the conveni-

ence of the wine maker. If you fill a tank five or six feet high with must and draw off the wine red hot you can't expect much.

Mr. McClure—Don't two-thirds of our wine makers use high tanks?

Mr. Estee—I don't care to say.

Mr. McClure—I know Anduran does.

Mr. Estee—Let me explain. Here is a tank six feet high, filled with decaying grapes. The carbonic acid gas rising to the top is hot, and as it passes up it gets hotter and hotter. At the bottom it will be less hot than at the top. The change from sugar to carbonic acid gas is therefore bound to go on irregularly—not the same at the top and bottom of the tank. A fermenting tank ought not to be over four feet high. So say McIntyre and Crabbs. I have thirty tanks, none over four and a half feet nor under ten feet in diameter, and I have a rack in each of them. Fermentation is a peculiar process in nature. If the temperature is too cool, the fermenting germs will die, and fermentation will cease. The same thing is true if the temperature is too hot. It is too cold at fifty degrees and too hot at 90, 95 or 100. It ought to be between 70 and 85. This temperature is the natural condition required for the life of the germs, and at this temperature alone can fermentation be successfully carried on. With high tanks you can't keep it there, because of the fact I have alluded to. True, if you use low tanks you can't make wine so easily. You will need more men for thirty days, and more space. To show you the effect and reason—White wines must always ferment away from the skins. You mustn't put the liquid into large bodies. It is generally put into pipes of 160 gallons. Of course, some do ferment it in 1,000 gallon tanks, but the best wine makers don't.

Mr. McClure—Well, we ought to do something to improve the quality of our wines, for we are turning out some pretty poor stuff.

Mr. Estee—Not at all, considering the youth of the business. But it is true that our good wines are made by men who make small quantities.

CLUFF BROTHERS,

WHOLESALE AND RETAIL GROCERS.

FIVE LARGE STORES.

40 & 42 SECOND STREET,

9 & 11 MONTCOMERY AVE.,

40 FOURTH STREET,

401 HAYES STREET,

409 & 411 MONTGOMERY AVE.,

SAN FRANCISCO.

All Orders by Mail Promptly Attended to and Shipped Free.

JOHN A. ROEBLING'S SONS CO.
WIRE ROPE
 GALVANIZED SHIP RIGGING, MINING, TINNER,
 ELEVATOR, TINNED & COPPER ROPE, SASH CORDS.
 LARGEST WIRE ROPE WORKS IN THE WORLD.
IRON & STEEL WIRE OF EVERY KIND.
 TELEGRAPH WIRE, HARD & SOFT COPPER WIRE
 INSULATED FOR ELECTRIC USE.
 SWEDISH IRON WIRE, CRUCIBLE STEEL WIRE.
 TRENTON, N.J. & 14 DRUMM ST. SAN FRANCISCO, CAL.

Dr. MINTIE

THE SPECIALIST,

No. 11 KEARNY ST., San Francisco.

Treats all Chronic, Special and Private Diseases with Wonderful Success.

THE GREAT ENGLISH REMEDY



Is a never-failing cure for Nervous Debility, Exhausted Vitality, Seminal Weakness, Spermatocoea, Lost Manhood, Prostatitis, Impotency, Paralysis and all the terrible effects of self abuse, youthful follies and excesses in mature years, such as loss of Memory, Lassitude, Nocturnal Emissions, Aversions to Society, Dimness of Vision, Noises in the Head, excess in drinking intoxicating liquors, the vital fluid passing unobserved in the urine, and other diseases that lead to insanity and death.

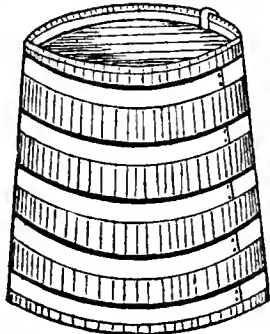
Dr. Mintie who is a Regular Physician Graduate of the University of Pennsylvania, who will agree to forfeit \$500 for a case of this kind the Vital Restorative, (under his special advice and treatment) will not cure, or for anything injurious or infectious found in it. Dr. Mintie treats all Private Diseases Successfully Without Mercury. Consultation Free. Thorough examination and advice, including analysis of urine, \$5. Price of Vital Restorative, \$1.50 a bottle or four times the quantity, \$5; sent to any address upon receipt of price, or C. O. D., secure from observation, and in private name if desired, by Dr. A. E. Mintie, 11 Kearny street, San Francisco, Cal. Send for pamphlet and list of questions.

SAMPLE BOTTLE FREE.

Will be sent to any one applying by letter stating symptoms, sex and age. Strict Secrecy in regard to all business transactions.

DR. MINTIE'S KIDNEY REMEDY NEPHRETICUM, cures all kinds of Kidney and Bladder Complaints, Gonorrhoea, Gleet, Leucorrhoea, etc. For sale by all Druggists; \$1 a bottle, 6 bottles for \$5.

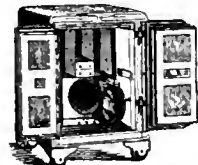
DR. MINTIE'S DANDELION PILLS are the best and cheapest **DYSPEPSIA** and **BILIOUS** cure in the market. For sale by all Druggists.

REDWOOD TANKS**F. KORBEL & BROS.**

727 BRYANT ST., S. F.

Or at NORTH FORK MILL, Humboldt Co., Cal.

FIRE-PROOF SAFES ALL SIZES.



built to order.

CHAS. WALTZ,
11 Drumm Street, SAN FRANCISCO, CAL.
Write for prices and information.

RUPTURE RADICALLY CURED by Dr. Pierce's Great Discovery. Thousands of patients cured AT THEIR OWN HOMES. No Experiment! It does the Work. **DR. PIERCE & SON, 704 So to St., San Francisco, Cal.**

THE COOS BAY STAVE & LUMBER CO.

— MANUFACTURERS OF ALL KINDS OF —

COOPERAGE GOODS!

Especially invite the attention of Wine Men to their unsurpassed facilities for supplying packages from a

5-GALLON KEG TO A 160-GALLON PIPE OR PUNcheon.

our machinery enables us to execute all orders with promptness and economy. Price List on application.

OFFICE: 323 FRONT STREET,

WORKS

BRANNAN ST., NEAR EIGHTH.

MESSRS. A. BOAKE & CO'S

LIQUID ALBUMENS,
FOR CLARIFYING AND PRESERVING WINES.

The undersigned having been appointed Sole Agents on the Pacific Coast by Messrs. A. BOAKE & CO., STRATFORD, Eng., for their renowned

CLARIFYING LIQUID ALBUMENS,

Reg to call the attention of Wine Growers and Wine Merchants to the following articles, the superior merit of which has been confirmed by Silver Medals, the highest awards given at the International Exhibition of Paris 1878, Bordeaux 1882, and Amsterdam 1883, viz:

**LIQUID ALBUMEN FOR RED WINES,**

Claret, Burgundy and Port.

**LIQUID ALBUMEN FOR WHITE WINES,**

Sauternes, Sherry and Madeira, also for distilled liquors: Whisky, Gin, etc., etc.

**WINE PRESERVER,**

For Preserving the Brilliance of the wines.

**WINE CORRECTOR,**

For Correcting the Roughness of Young Wines.

**WINE RESTORER,**

For Restoring Badly Made or Badly Treated, Harsh and Tart Wines.

A trial according to directions will prove the superior qualities of these preparations. For sale in quantities to suit by

CHARLES MEINECKE & CO., Sole Agents,
314 SACRAMENTO STREET, SAN FRANCISCO.

WM. T. COLEMAN & CO.,
Commission Merchants.

SAN FRANCISCO,

CHICAGO,

NEW YORK,

Agency WM. T. COLEMAN & CO.,

Agency WM. T. COLEMAN & CO.,

ASTORIA, Or.,

LONDON.

With Agents and Brokers in every Commercial City of Prominence in the Union.

WE MAKE A SPECIALTY OF HANDLING THE

RAISIN CROP OF CALIFORNIA!!

And amongst others we are Agents for

Riverside Fruit Company of Riverside, Miss Mary F. Austin of Fresno, McPherson Bros. of Orange, T. C. White of Fresno.

With many other of the Most Prominent Curers of this State.

Our Facilities for Promptly Placing and widely Distributing Their Produce can be Ascertained from the Above well-known Curers.

We are also Large Handlers of

ORANGES, DRIED FRUITS, HONEY AND BEANS

IN THE EASTERN STATES.

Advances Made when Required, and Full Information of Markets Promptly Given. Address

Wm. T. COLEMAN & Co.

MARKET & MAIN STS., S. F.

"LE MERVEILLEUX"

Most Powerful and Cheapest

Wine and Cider Press

YET PRODUCED.

Patented in France, England, Germany, Belgium, Italy, Norway, Sweden, Denmark and the United States.



This press (a French invention) has been used several seasons in the vine districts of France and Germany with great success, and is now introduced to the American public for the first time.

Its advantages are: Rapidity of action and unlimited power. With a single effort 3 or 4 times more power can be obtained than with any other press known at this day. It has also greater capacity than any other press in the market. The Press can be seen in operation, and is for sale, at the factory of T. W. KROGH & CO., 51 Beale St., San Francisco, Cal.

PARE BROS.,

Sole Agents for United States,

Fresno, Cal.

227 Second Street

NOW READY.

THE
REPORT

OF THE

FOURTH ANNUAL

STATE

VITICULTURAL
CONVENTION.

PRICE, ONE DOLLAR.

OFFICE OF THE SAN FRANCISCO MERCHANT.

E. C. HUGHES & CO.,

Publishers,

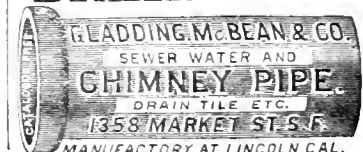
511 Sansome Street.

IT STANDS AT THE HEAD

In the Race for Supremacy in the Sewing Machine Trade.

The FIRST PLACE is universally conceded to the
"DOMESTIC."

J. W. EVANS, General Agent.
29 F STREET.

DRAIN TILE.

HONOLULU CASTLE & COOKE, SHIPPING AND

COMMISSION MERCHANTS

Honolulu, Hawaiian Islands.

—AGENTS FOR—

THE KOHALA SUGAR CO.,
THE HAIKU SUGAR CO.,
THE PAPAIOU SUGAR PLANTATION
THE WAIALUA SUGAR PLANTATION
THE PAIA PLANTATION
A. H. SMITH & CO.,
THE N. E. M. LIFE INSURANCE
CO. BOSTON,
THE UNION INSURANCE CO.
OF SAN FRANCISCO,
THE GEO. F. BLAKE MFG CO.,
STEAM AND VACUUM PUMPS,
D. M. WESTON'S CENTRIFUGAL
MACHINES

WM. G. IRWIN & CO.

SUGAR FACTORS AND

COMMISSION AGENTS

Honolulu, H. I.

—AGENTS FOR—

HAKALAU PLANTATION.....	Hawaii
NAALEHU PLANTATION.....	Hawaii
HONUAPO PLANTATION.....	Hawaii
HILEA PLANTATION.....	Hawaii
STAR MILLS.....	Hawaii
HAWAIIAN COM'L & SUGAR CO.....	Mau
MAKEE PLANTATION.....	Mau
WAIHEE PLANTATION.....	Mau
MAKEE SUGAR CO.....	Kaua
KEALIA PLANTATION.....	Kaua

Agents for the

OCEANIC STEAMSHIP COMPANY.

Kohler & Frohling, PIONEER WINE HOUSE.

ESTABLISHED 1854

Growers of and Dealers in

CALIFORNIA WINES & BRANDIES.

VINEYARDS IN

LOS ANGELES COUNTY, SONOMA COUNTY,
MERCED CO. AND FRESNO CO.

626 MONTGOMERY ST.,
San Francisco.

6 Barclay St.,
New York.

A. ZELLERBACH,

IMPORTER AND DEALER IN

BOOK NEWS FLAT, WRITING
PAPER.

MANILA, WRAPPING AND STRAW PAPER,

Colored, Poster and Tissue Paper Also En-
velopes and Twine.

419 & 421 CLAY STREET.

A few doors below Sansome San Francisco, Cal



THE SOUTHERN PACIFIC CO.,

Respectfully invites the attention of TOURISTS AND
PLEASURE SEEKERS to the SUPERIOR FACILIT-
IES afforded by the "Northern Division" of its line
for reaching the principal

SUMMER AND WINTER RESORTS OF CALIFORNIA

WITH SPEED, SAFETY AND COMFORT.

Pescadero, Menlo Park, Santa Clara,
San Jose, Madrone Mineral Springs,
Gilroy Hot Springs.

-MONTEREY-

THE QUEEN OF AMERICAN WATERING PLACES.

Camp Goodall, Aptos, Loma Prieta,
Monte Vista, New Brighton, Sequel,
Camp Capitola, and

SANTA CRUZ.

PARAISO HOT SPRINGS.

EL PASO DE ROBLES

HOT AND COLO SULPHUR SPRINGS.
And the only Natural Mud Baths in the World.

This Road runs through one of the richest and
most fertile sections of California, and is the only line
traversing the famous Santa Clara Valley, celebrated
for its productiveness, and the picturesque and park-
like character of its scenery; as also the beautiful San
Benito, Pajaro and Salinas Valleys, the most flourish-
ing agricultural sections of the Pacific Coast.

Along the entire route of the "Northern Division"
the tourist will meet with a succession of Extensive
Farms, Delightful Suburban Homes, Beautiful Gar-
dens, Innumerable Orchards and Vineyards, and Lux-
uriant Fields of Grain; indeed a continuous panorama
of enchanting Mountain, Valley and Coast scenery is
presented to the view.

Characteristics of this Line:

GOOD ROAD-BED.	STEEL RAILS.	ELEGANT CARS.
LOW RATES.	FAST TIME.	FINE SCENERY.

TICKET OFFICES—Passenger Depot, Townsend street,
Valencia St. Station, and No. 613 Market Street,
Grand Hotel
A. C. BANSETT, H. R. JUDAH,
Superintendent, Asst. Pass. and Tkt. Agt.

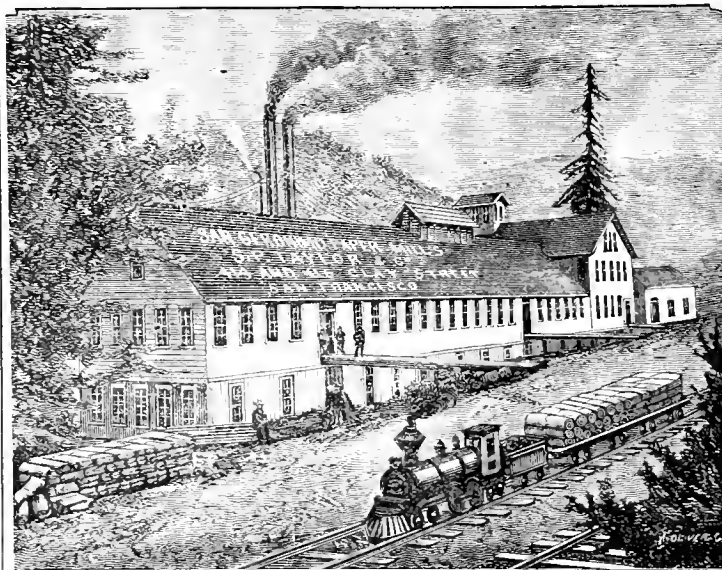
1856.

PAPER.

1886.

S. P. TAYLOR & CO.

Manufacturers of and Dealers in Paper of all kinds.



Book, News, Manila, Hardware, Straw and Tissue

PAPER.

Paper Bags, Twines, Etc., Etc.
PRINTED WRAPPERS A SPECIALTY.

Proprietors Pioneer and San Geronimo Mills. Agents for South Coast (Straw) Mills.

414 and 416 CLAY ST., SAN FRANCISCO.

S. P. COMPANY.

QUICK TIME AND CHEAP FARES

To Eastern and European Cities

Via the Great Trans-continental All-Rail Routes

— OF THE —

SOUTHERN PACIFIC COMPANY.

(PACIFIC SYSTEM)

Daily Express and Emigrant Trains make prompt con-
nections with the several Railway Lines in the East.

CONNECTING AT

NEW YORK AND NEW ORLEANS

with the several Steamer Lines to

ALL EUROPEAN PORTS.

PULLMAN PALACE SLEEPING CARS

attached to Overland Express Trains.

THIRD-CLASS SLEEPING CARS

are run daily with Overland Emigrant Trains.

No additional charge for Berths in Third-class Cars.

Tickets sold, Sleeping-car Berths secured, and
other information given upon application at the Com-
pany's Offices, where passengers calling in person can
secure choice of routes, etc.

Railroad Lands

FOR SALE ON REASONABLE TERMS.

Apply to, or address,

W. H. MILLS,	JEROME MADDEN,
Land Agent,	Land Agent,
C. P. R. R., SAN FRANCISCO.	S. P. R. R., SAN FRANCISCO

A. N. TOWNE.	T. H. GOODMAN.
General Manager.	Gen. Pass. & Tkt. Agt.
SAN FRANCISCO, CAL.	

SHIPPING.

OCEANIC STEAMSHIP COMPANY.

CARRYING THE UNITED STATES, HAWAIIAN
and Colonial mails for

HONOLULU,

AUCKLAND,

and SYDNEY

WITHOUT CHANGE.

The splendid new 3,000 ton Steamship



ALAMEDA

Will leave the Company's wharf, corner Stuart
and Folsom streets,

SATURDAY, October 23rd at 2 P. M.

Or immediately on arrival of the English mails.

For freight or passage apply at office, 327 Market st.

JOHN D. SPRECKELS & BROS.,
General Agents.

OCCIDENTAL & ORIENTAL STEAMSHIP COMPANY.

for JAPAN and CHINA.

Steamers leave Wharf corner First and Brannan sta.
at 2 o'clock, P. M., for

YOKOHAMA and HONGKONG.

Connecting at Yokohama with steamers for Shanghai.

1886.

STEAMER. FROM SAN FRANCISCO.
BE GIG. TUESDAY, OCTOBER 19th
SAN PABLO. TUESDAY, NOVEMBER 9th
OCEANIC. WEDNESDAY, DEC. 1st
GAELIC. TUESDAY, DECEMBER 21st
EXCURSION TICKETS to Yokohama and return
at reduced rates.

Cabin plans on exhibition and Passage Tickets for
sale at C. P. R. Company's General Office, Room 74,
corner Fourth and Townsend streets.

For freight apply to GEO. H. RICE, Freight Agent,
at the Pacific Mail Steamship Company's Wharf, or
at No. 202 Market street, Union Block.

T. H. GOODMAN Gen. Passenger Agent.
LELAND STANFORD President

SPRAY PUMPS.

Fruit Growers, Farmers, and all desiring to purchase
a Spray Pump that is far ahead of all others in the
market, as it is the ONLY Pump made with all metal
valves, should buy the "CLIMAX SPRAY
PUMP," all complete with tube, spray nozzle,
plain nozzle, galvanized iron can, six feet of best Rob-
ber Hose; capacity, 8 gallons; all ready to use. Price,
\$15.00. Good Agents wanted at once. Send for
Circulars. 211 California St., San Fran-
cisco, Cal.

Williams, Dimond & Co.

SHIPPING

—AND—

COMMISSION MERCHANTS, UNION BLOCK.

CORNER FINE AND MARKET STS., San Francisco, Cal.

Agents for Pacific Mail Steamship Co., Pacific Steam
Navigation Co., the Cunard Royal Mail Steam
Ship Company, the California Line
of Packets from New York,
the Hawaiian Line
of Packets.

The China Traders Insurance Company (Limited.)



IMPORTERS OF ALL KINDS OF
Printing and Wrapping Papers.
401 & 403 SANBORN ST., S. F., I

